

Electric Railway Journal

Consolidation of STREET RAILWAY JOURNAL and ELECTRIC RAILWAY REVIEW

Volume 54

New York, Saturday, August 23, 1919

Number 8

Hearings on Mail Carrying

Compensation Should Bring Good Results

NO MATTER what the outcome may be of the electric railway mail pay hearings concluded early this month, and we believe it will be favorable to the railways, the fact remains that the American Association did a good job in systematizing the presentation of the testimony of the electric railways at the several centers. The use of a simple but comprehensive program enabled the federal authorities to comprehend the actual conditions with a minimum of effort. Inside of two months nineteen hearings were held in widely scattered sections of the country and probably 300 witnesses were heard, of whom one-half presented exhibits. The physical effort involved on the part of those who personally participated in the hearings is in itself worthy of comment. There are many matters of countrywide scope like this which can best be handled by a national organization. The electric railway investigation now before the Federal Electric Railways Commission is another case in point. The electric railway business is emerging from its isolation in local communities to take its place as a national problem. To the American Electric Railway Association is offered a wonderful opportunity in this connection.

Don't Forget the Track Department

IN THESE days, when we are getting so many encouraging reports about the wonderful records of lower costs and better business due to the installation of safety cars, we are likely to forget that the way department can help a bit, too, if given the opportunity. To talk about the bigger opportunity first, there is the matter of rerouting. The suggestion for rerouting may come from the transportation department, but it is the way department that ought to be given a chance to prove whether the relocations are going to cost quite as much as the transportation department supposes. Perhaps a little study will demonstrate that a few cars less would do the same work and as effectively if the routes and special work were laid out differently to meet changed traffic conditions.

As for smaller opportunities for improvement, we have in mind a town where cars going from storage into service for the day have to back up once or twice every time they want to get in the direction of the main traffic, and in some instance the cars have to run opposed to traffic for several hundred feet before they can get over to the track on which they belong. These layouts were made many years ago, when, it is to be assumed, the traffic conditions were different. They do not meet the needs of to-day and thereby impose delays and possibility of accidents upon the transportation

department and unjust blame upon the way department.

Then, too, it is not unusual to find single-track towns where the crew of one car cannot see the other because of breaks in grade, curves, foliage and the like. It is not fair to the cause of good service to allow such conditions to continue without either signal protection or double-tracking. A general conference may show that the cost of but one new car if applied to way and line improvements would be justified by the fact that it would speed up the schedule to an extent otherwise impossible. The problem before the general manager, therefore, is the old but sometimes forgotten one of spending each available dollar where it will do the most good to the system as a whole. Track switches are less sensational than cars, but they are also entitled to a hearing before the board of disbursement.

Differences Are Not Insurmountable

THE week of hearings for the public side before the Federal Electric Railways Commission has developed the significant impression among those who have sat through all the sessions that the railways and the public are not so far apart as has generally been supposed. It might almost be possible to argue the railway case on the testimony of any ten consecutive witnesses, regardless of which side the evidence presented by them was intended to support. Even on the question of municipal ownership, while believing that municipal operation would be less efficient, many of the railway men would accept this plan as a last resort if they could see that the municipalities had the power and the means to effect a purchase quickly. But this seems to be a step of distant possibility, and the industry is concerned with an immediate remedy. Another often-repeated contention of the public's witnesses was the over-capitalization of the street railways, but this is not a factor in the settlement the railway men are seeking, for they have expressed their willingness to base a permanent settlement on a fair valuation of their properties.

Aside from these two points, there has been a marked unanimity of thought as to the general principles, though naturally a wide divergence of views as to the details of effecting the adoption of these principles. All are agreed that the industry is in a serious condition and that a new order of relations between the public and companies must be effected. All are agreed that the first step in bringing about a permanent settlement is an evaluation satisfactory to both parties. This is the starting point. As to what theory shall form the basis of the appraisal is a matter of detail on which there are as many opinions as there are experts. Practically all are agreed that in the interim, while a

permanent settlement is being worked out, almost the only practical relief is a temporary flat fare increase. Where there are constitutional grants specifying a maximum fare, the city is in a position to exact its pound of flesh if it chooses, but almost every witness has expressed his faith in the fair mindedness of the American public if it is possessed of the whole truth, and this attribute must be relied upon to bring about a fair solution in such cities. There is no other solution under those conditions.

There was practically an agreement that the indeterminate franchise is more satisfactory, provided the reservation of purchase by the city is clearly set forth and made actually possible. There was almost unanimity of opinion that under private operation some service-at-cost plan is the best arrangement. There was almost no objection to the contention that paving taxes should be abolished as a charge against the car riders. There was also agreement that on a sound valuation the rate of return which a company should be allowed to earn should be enough to attract capital and to set aside a sinking fund for depreciation, renewals and replacements. It was generally felt that the jitneys could not supply adequate service if the transportation needs of the communities were dependent on them alone, except perhaps in small towns.

What the final outcome may be is entirely beyond the intent of this editorial to predict or even indicate, but the absence of any striking or insurmountable differences appeals to us as being an omen that the recommendations from the commission will have a far-reaching effect in bringing about a distinct improvement in the public attitude with the result that a revenue increase will be indorsed. By virtue of such a result, the railways will be put in a position to give the cities the service they need and want.

The (Nearly) Automatic Power Plant

WHILE the automatic or semi-automatic substation has deservedly had a great deal of publicity of late, one should not overlook the progress that has been made in the direction of automatizing the power plant itself. As compared with one of twenty years ago the present-day plant is operated with a very small labor force, a force of a character much more highly skilled than formerly. B. J. Arnold, the original inspiration of the automatic control of substation, was also a pioneer in the same direction in the power plant field, as reference to his Grand Trunk Railway Sarnia tunnel plant will show. That plant, it will be remembered, was originally needed only for short periods at long intervals, and conditions favored a then unusual amount of automatic control through variation in boiler steam pressure. Due to the necessity for cutting out labor costs and eliminating "the personal equation" in the power plant, the principles illustrated in the Sarnia tunnel plant are now widely applied. This process has been aided by the increase in size of prime mover units and the simplification of operating procedure of the turbine, boiler and pump rooms. Furthermore, much attention has been given to the mechanical handling of power plant materials—fuel, ashes, water and parts of the equipment, which formerly required the services of a large part of the station force.

There is wide opportunity, particularly in the older

plants, for further reduction in labor cost, and for increase in reliability, by making these plants more nearly automatic.

There Is No Money for Superfluous Labor

IN ALL the speeches and writings about the high cost of electric railway operation, it is remarkable how little is said about the question of superfluous labor on the car platform. No manufacturer would dream of having two men operate a machine when one would be enough, whereas in the electric railway business too many companies and too many employees take it for granted that there should always be two men to the mileage-producing machine, the car. Talk to an electric railway manager, who is faced by another strike for higher wages and ask him why he doesn't go to one-man car operation for the smaller cars at least. With a sigh, he says that he does not dare to raise the question, that labor is powerful in his town, that the public would never stand for it, etc. Ah, yes, but does the public welcome the higher fares and the poorer service that high platform costs are leading to? Assuredly, it does not.

Why not, then, go frankly before the public and say that the retention of lower fares and frequent service is simply impossible if the electric railway must continue to employ men in positions which have been made obsolete by the progress of invention. Nobody sees bus operators ruled off the street or boycotted by the public because the driver also collects the fare; yet there is no comparison between the safety of the bus and of the new or the modernized one-man car.

When the wages of the conductor and motorman alone amount to \$1 per car-hour out of \$3 gross earnings it is surely time to have a show-down. In a recent case, the platform men alone asked for a wage that would have equaled about one-half of the revenue. Obviously, such a demand leaves the railway in a despairing, desperate position unless it has the courage to put up its back and fight in the open with the public as referee.

We certainly are not questioning the justice of any particular rate of pay requested by the men, but they must understand that electric railway service is not a sinecure. To-day every employee on the car platform must be a producer, not a spectator. Could anything be more absurd than for an electric railway to spend vast sums for prepayment areas and yet retain the conductor to stand in the way of boarding passengers? Or to spend large amounts on automatizing the car without combining the greatly decreased duties of motorman and conductor in one individual? What makes the situation still more intolerable is that all the railway would ask would be to turn most of the superfluous men into operators of additional cars. Heaven knows that plenty of electric railways could double their service if only to recapture the traffic that the jitney has taken away from them, but they cannot do it at a cost of \$1 to \$1.50 per car-hour for the wages of two men. Let us repeat that it is more than high time for electric railway men to face the music in this matter, for they have found to their sorrow that it is not so easy to pass-on this wastage to the public. If electric railways are being run to keep superfluous men in their jobs, let that fact be known and the laborite defenders of the practice put on the defensive.

The New York Strike and the Future

NEW YORK experienced this week a "rapid-transit-less" Monday and will not want to repeat the experience. Mayor Hylan has had a good deal to say during the past month as to the great merits of bus transportation, but the public prefers the subway and elevated. The dispute has been settled temporarily, largely through the efforts of Public Service Commissioner Nixon, but the fundamental trouble still remains—*i.e.*, that of fare. Until an increase is granted the company cannot give the service which the city ought to have. Mayor Hylan has had much to say in the past about profiteering landlords. Why does he not become equally indignant at city officials who are taking advantage of the extraordinary conditions brought about by the war to compel railway companies to carry passengers at less than cost? New York City stands practically alone among the large cities of the country as being unwilling to grant a petition for fare increase. In some of the other cities the increase has not been as large as the companies need, but the New York municipal authorities permit nothing and do nothing but vituperate. This is all the more noticeable because of the fact that New York is a partner in the rapid transit development. Now that the Interborough has granted an increase in wages of 25 per cent to its men, the fact must be more than ever patent that its income should be increased.

Why Not Get

New Money at Home?

RECENTLY there came to hand a letter saying: "In spite of the increased costs, we declared the usual semi-annual dividend of 3½ per cent on our preferred stock." The manager who sent this cheerful news operates a combination light and railway plant in a small Southern town with few of those industrial advantages that a public utility needs to grow and prosper. But this man believed in the town, and he made the townspeople believe in it, too, by the most substantial token possible—the investment of their own money in the home utility. His methods and his success offer a genuine inspiration to other operators who have been turned down heartlessly when they have sought new money in the usual financial quarters.

On taking over the property in its original run-down condition, our Southern friend minced no words in telling the public that the remedy lay with them quite as much as it did with him. If they had as much faith in their home town as in some gas or oil well that they had never seen, he would expect them to subscribe for the funds necessary to make their community a better place to live in. How could he be expected to get money from Wall Street if they were not willing to take a chance on providing better light and railway service aside from dividends? Through his absolute frankness and hard work, the money was raised and the dividends have been coming regularly for the last four years. It goes without saying that this plan insured the friendship of almost every substantial citizen in the community, and the public as a whole was made to feel that this was in a very real sense their lighting company and their railway.

This true story is worth retelling by many a manager who knows that there is plenty of money in his town to finance any required modernization of the sys-

tem. Surely any community which is live enough to raise several hundred thousand dollars as an outright gift for some one welfare purpose, because that gift will make life in their town more agreeable, ought to be willing to lend, at a fair rate of interest, similar amounts for the betterment of a utility whose improved service means enhancement of property values and improved conditions of living for practically everybody. In the purchase of new cars, especially, it is very appropriate to solicit local loans because the risk when standard cars are purchased is practically nil. Anyway, what better answer can be given to the Boosters' Club than to ask them to prove their faith by their works?

Information for the Passenger

WHEN a group of men are operating the same railway system day in and day out, it is hard for them to realize how little many of the riders know about the routes, the streets, the hotels, the business buildings and other traffic-making features of the community. You ask a conductor where so and so is, and if he hasn't just been taken on from a country-store apprenticeship he may know enough to say something like: "It's in the Nineteenth National Bank Building," or "Just turn off in front of the Post Office, walk three blocks to the right and then two to the left." The most puzzling direction, however, is to be told to go in some direction of the compass when we have carelessly left our compass at home and there is no sun or star to guide us. Some day a lot of railways will follow the example of Philadelphia and get out a route guide, or of St. Louis in telling where the important places are and how to reach them.

Almost everybody will admit that the stranger within the gates needs help, but so does the native who has wandered into some other part of town. He may know the schedules and destinations of his own route perfectly, yet when out of his own neighborhood be just as helpless as a stranger. How is he to know, for example, that on Sundays and holidays some cars are rerouted and that others do not go to the end of the line unless there is a card of some kind in the cars, in waiting rooms or at transfer points. We wonder, also, how many rides have been lost because a stranger had no schedule boards to advise him when cars passed certain corners. Still another kind of information which is of great help to the stranger, and even to the native, is about the stopping points of cars, particularly at places where the usual near-side or far-side stop is not observed. In every city there are exceptions to the usual rule on stops, and these exceptions should be clearly marked by street signs. A man who has already walked ten to twenty minutes is generally sore enough to continue walking, because he feels that he would be handing the railway something by paying full fare for part ride.

We hope that renewed attention will be given to this subject wherever zone fares are installed. Every zone boundary ought to be an information point as regards headways and, possibly, as regards places reached. It would be poor business policy to let people cut off a zone or two from their fares when a little information would tend to keep them waiting for the car. Always sell the customer the largest piece of transportation he really ought to have!

The Street Inspector as He Was and Is to Be

He Once Occupied a Most Responsible Position—Then Changes in Practice Rendered Him Less Important—Now Conditions Are Reinstating Him as an Essential Railway Official

BY EDWARD DANA

Acting General Manager Boston Elevated Railway

IN EARLY DAYS, the street railway consisted of a few tracks on main thoroughfares, extending a relatively short distance from the central business section, and in many cases the routes operated on these tracks all started from a single carhouse. Here was located the official usually known as foreman, station master or starter, who was responsible for the dispatching of the cars on the several lines on schedule time and who also recorded the hours of work of the men who operated the cars.

It was necessary to provide a responsible official at the central business terminus to supervise car operation, and as the system extended over larger and larger areas this official developed into the "street aide," "traffic aide" or "street inspector," so-called. In those days when the tracks were laid but a short distance from the center of the city this official was almost always located in one spot and knew the patrons as well as the car crews individually. As the systems developed and consolidations occurred, divisions were created, and these in turn subdivided into districts which were patrolled by these street inspectors. The ever-increasing number of routes and more frequent operation of cars added to the responsibilities of these officials and their duties became much more complicated. They represented the division superintendent within their district. They were expected to observe and report defects of service, tracks, trolley and equipment. They took charge in case of accidents and diversions of cars and were expected to supervise the appearance, conduct and efficiency of the men operating the cars as well as regulate the spacing of cars within their district. As it frequently occurred that lines operated by several divisions passed through one inspector's district and as the number of trips operated each day increased, the inspector was no longer personally in as close touch as formerly with either the patrons or the men on the cars over whom he had jurisdiction.

In those days, managements looked upon the transportation department as a fertile field from which to call for operating economies, but unlike the technical departments it was not appreciated that sometimes sub-



THE MODERN STREET INSPECTOR READY TO ANSWER ANY CALL

stantial expenditures are necessary to secure greater economies. The transportation departments have therefore been called upon to work at top speed and at all hours of the day and night. This was one of the causes of the deterioration of the efficiency of the street inspector. Districts remained approximately as large as originally, yet these officials were called upon to be "jacks of all trades," and the hopelessness of showing the concrete efficiency of their efforts resulted very soon in a lack of

aggressiveness and an appreciation of the fact that they had been spread over their districts so thin that the division executive had considerable difficulty in holding them strictly to account. The public soon became acquainted with the situation, for as criticism of service became more and more acute, reference was often made to the fact that the company could not expect service when its officials in the person of street inspectors could be observed any day wasting valuable time and apparently indifferent as to their duties.

It is a well-known fact in any industry that a man charged with more work than he can properly perform and whose duties are so broad and distributed that he has no opportunity to show the direct results of his ability, will, as he remains on the same work over any extended period of time, gradually and consistently deteriorate.

The work of these men often reminds one of the various drives which we have experienced for war activities. If the management received complaint of certain conditions, a drive was made by the operating department and street inspectors would for several days be directed to concentrate so far as possible on careless operation at street intersections or the proper starting of cars or the appearance of the men and so on. Their official life has in a way been a series of efforts in cycles.

As time went on, another factor entered into the operation of street railways which had a very decided effect upon the activity of the street inspection, and that was the labor organization. It is believed that some of these inspectors had always had a misconception of their proper relationship and attitude toward the plat-

form employees and often it is said employed unfair methods in their efforts to ascertain the shortcomings of these men. Consequently this was not forgotten when conditions changed, and some employees when they became affiliated with a large labor organization made it disagreeable for street inspectors with the general result of lowered efficiency for these officials as a class. When this time arrived, in addition to the internal deterioration previously outlined, the usefulness of a street inspector in his former status became decidedly less.

THE INSPECTOR AGAIN BECOMES AN IMPORTANT OFFICIAL

Under modern conditions, the instruction and re-instruction of car and train men both old and new can best be carried out with the aid of the instruction school through which the spirit of instruction rather than criticism can be fostered, since the department which first initiates the individual into the business can in his eyes always exercise a more effective corrective pressure than an official whom he does not know or come intimately in contact with, except as the official happens to get upon the individual's car to instruct or correct him. Of course this requires a highly competent instruction organization capable of adequate follow-up work, among all employees, and the keeping of accurate and valuable records which has as yet not been developed as thoroughly as it should be.

The consistent improvement of the engineering departments having to do with equipment, line and track has relieved the street inspector from many former duties in connection therewith. Relieved therefore, to a large extent, of the matters referred to, the modern inspector can be charged with the specific responsibility of supervising the operation of the cars more nearly according to schedule and handling irregularities in a more up-to-date manner. Inconsistent as it may appear, when this is done his district may be enlarged rather than contracted. This can be brought about by utilizing the automobile.

As most street railway operating divisions on large properties spread out over quite a large territory, it can readily be seen that anything which reduces the idle time of an inspector in getting about increases his efficiency. The automobile, which annihilates distance greatly reduces traveling time and permits an inspector to cover the territory of his cars at various points more frequently. He can be of great service during the comparatively restricted rush hour by covering two points where congestion varies by a period possibly of less than a half hour, by the use of the automobile, whereas it would be impossible for him to do this in any other way. When emergencies arise, he can get to the scene in the shortest space of time when he is not confined to a route followed by the car tracks but is free to go across country. He is likewise relieved from exasperating loss of time as, for example, when obliged to wait ten or fifteen minutes before getting started on an emergency call because of the headway of the particular line of cars upon which he may be located.

The number of inspectors maintained in a division would determine the frequency with which they could be required to call the division headquarters, but under any circumstances it would be possible to be in touch with an inspector with an automobile every ten or fifteen minutes, who could reach any point of a division in

a very short time and be followed by others as they called in.

It requires but a very little imagination to one familiar with the increasing use of the automobile and its proved efficiency in other lines of business in which time is such an important factor, to picture any number of advantages which may be secured by motoring the inspectors not only as regards economies but also, which is to-day so important, that of providing efficient up-to-the-minute service.

By using an automobile, inspectors can not only decrease the cost of operation but, what is more important, improve the character of the service rendered. Some of the most bitter criticism of street railways is voiced by people who are inconvenienced when the service breaks down, yet often the officials have been doing their utmost to relieve the situation but have not had the wherewithal to make their efforts count to the fullest extent. Evidence of modern methods and a spirit of hustle when there is a failure will quiet many a disgruntled patron, for he need then but ask himself whether he could have done the job more quickly or in a more up-to-date manner. If he waits in a block of cars many minutes for an official to arrive and if when he does arrive the wrecking utensils are still a quarter of a mile away in a wrecking car rather than brought directly to the location in an automobile and the man on the job shows evident discouragement because of valuable time lost and inadequate provisions, he may well be justified in criticising such antiquated methods.

Today many influences are at work to make the electric railway situation much different than it was of old. Electric railway operators, be they private or public, must think along new lines and give evidence of modern practices if they hope to meet and satisfy the wants of the patrons whom they handle.

One large urban property recently took the initial step in experimenting with this method of automobile supervision and has already received satisfactory results.

Increasing Power Supply in Great Britain

In a recent address before the Association of British Chambers of Commerce, Major Philip Dawson expressed the belief that general embarkation in the construction of super-power stations in Great Britain would be a mistake. The effort first should be to increase small capacities, especially in those districts where there was a demand for power, at the same time encouraging the co-ordinated extension of existing supply plants. There should also be a removal of restrictive legislation and a serious effort should be made to build up the load factor of existing properties. There were undeveloped opportunities for hydro-electric development, particularly in Scotland.

Among the immediate possibilities of the use of electric power from such super-stations, he mentioned, in particular, greater railway electrification. The London, Brighton & South Coast Railway, for instance, one of the pioneers in electrification, is well satisfied with the results of the last ten years. During this time the receipts of its electrified lines have more than doubled, and but for the war the whole of the suburban lines, amounting to more than 150 miles of track, would now be electrically operated. The electrification of the suburban system of this company would demand and justify the creation of a super-power station.

Hearings for the Public Side Concluded

Federal Commission Testimony Reflects Impression of Gross Over-Capitalization Held by the Public as Principal Cause of Antipathy — General Acknowledgment of Need for New Relations — Detailed Proceedings from Wednesday Noon Through Adjournment, Friday Night

THE hearings of the Federal Electric Railways Commission on the public side of the electric railway situation were concluded last Friday night, Aug. 15, having continued from Monday morning throughout the week, with evening sittings the last three days. Adjournment was made until about the second or third week of September when the third interested party, labor, will present its case. The Amalgamated Association of Street and Electric Railway Employees of America, whose president is a member of the commission, will have charge of the presentation of this program, through counsel and economists especially employed for that purpose. The testimony is being very carefully prepared and will deal with such questions as the need of a minimum living wage, the relation of labor to the operation of street railways, etc.

The report of the Federal Commission hearings which appeared in last week's issue carried through part of the Wednesday morning sitting,

and gave part of the testimony of William C. Bliss, chairman Rhode Island Public Utilities Commission. Mr. Bliss had pointed out the great difficulties which had been brought about through the awards of the War Labor Board without regard to the ability of the company to pay. He felt that this attitude of the War Labor Board was entirely unjustified.

Questioned if the failure to secure an increase in wages would not have acted anyway to drive the employees to other lines and have killed the utility from lack of help, Mr. Bliss stated that the federal authorities should have endeavored to revive the patient first and granted the increase when it could be borne. If they were going to kill the patient they should at least have done it mercifully, and not tortured him to death. He could not reconcile an award which granted not only a \$1,250,000 per annum increase, but also back pay in the sum of \$300,000, and this when the company did not have any money with which to meet it. He said that

the only way the Rhode Island Company has continued to operate was by not paying its State and municipal taxes.

Mr. Bliss pointed out that federal intervention in the affairs of the Rhode Island Company through labor awards, fixing of coal and freight rates, etc, had imposed an increase in the 1918 operating costs of \$1,605,959 out of a total increase from all causes of \$2,190,978. The company now faced a deficit in 1919 of \$2,111,578 short of paying operating expenses and taxes. The

limit of remedy which may be derived from increasing rates will soon be reached if it has not been already. The witness further reflected that it is unfair to make the man on the car contribute all of the increased operating cost. This policy he thought was driving patronage away from the trolley, and permanently, for it was finding other expedients of transportation and not returning. He thought the eighteen-day strike had had a permanent effect of this nature.



Caught unaware, their faces register how earnestly they have sought the fundamental difficulties. Chairman Elmquist has exposed a back that looks capable of carrying the railways' burden. The other gentlemen are Commissioners Beall, Gadsden and Sweet.

Zenas W. Bliss, receiver Rhode Island Company and chairman of the State tax commission, took the stand at this time and very briefly told the commission of the tax laws in Rhode Island. He said that the combination of city, county and State taxes in Providence made an assessment of 12½ per cent of the gross receipts of the traction company. The tax commission had recommended the elimination of franchise and paving taxes, but having only advisory power, this had not been accomplished. This commission believed the property tax should be retained as this relieved the security holders of the necessity to pay a tax and increased the value of the securities. Some improvement could be expected if a central tax authority were provided to have jurisdiction over, for instance, the determination of the tax on the Rhode Island Company in the twenty-six municipalities in which it operates. Some equalizing influence was needed on the tax appraisals.

Mayor Charles B. Gillen of Newark then took the

stand and testified briefly about the jitney service in his city, stating that the car service had become so poor that the introduction of some other form of transportation was necessary. He said the trouble with the street car problem was the large amount of water in the capitalization and that the Public Service railway system had \$100,000,000 of water and only \$60,000,000 of real value. Newark lines were profitable, he said, but they had to help pay the cost of operating all of the unprofitable lines running all over the State, for which the company was paying high rentals. The value of \$60,000,000 was the figure arrived at by Delos F. Wilcox and Mark Wolff, he testified upon cross-examination.

Delos F. Wilcox, who followed the Mayor, occupied the stand from about 11.30 a. m. through the afternoon

and evening sittings and until 11 p. m. He began his testimony by pointing out the contrast in financial conditions between the municipally-owned tramways of Britain and the privately-owned properties of the United States. The only cities of any considerable size in Britain which do not have municipally-owned tramways, are Bristol and Dublin, and the London bus line and London underground, these being private corporations. It was pointed out that one of the principal distinguishing points between the British properties and the American companies was that the process of electrification of the tramways in Britain had been done subject to the dictation of public policy rather than in the interests of private corporations. In this country the bankers and syndicates which got control of the street railway utilities, in 90 per cent of the cases,

Registration at the Federal Electric Railways Commission Hearings for the Public Side

- WILLIAM D. B. AINEY, chairman Public Service Commission of Pennsylvania, Harrisburg, Pa.; Aug. 14, 15.
 W. R. ALBERGER, vice-president and general manager, San Francisco-Oakland Terminal Railways Company, Oakland, Cal.; Aug. 11, 14.
 J. H. ALEXANDER, vice-president Cleveland (Ohio) Railway; Aug. 13.
 J. R. ALPINE; Aug. 13.
 P. S. ARKWRIGHT, president Georgia Railway, Light & Power Company, Atlanta, Ga.; Aug. 14, 15.
 PERRY ARNOLD, A. E. R. A., New York, N. Y.; Aug. 14.
 S. S. ASHBAUGH, attorney, counsel for American Association in mail pay case, Washington, D. C.; Aug. 11.
 W. A. AYSE, Congressman, Washington, D. C.; Aug. 15.
 RODGER W. BABSON, statistician, Boston, Mass.; Aug. 11.
 A. N. BARBER, secretary Board of Public Utility Commissioners of New Jersey, Trenton, N. J.; Aug. 11.
 H. W. BARNUM, general counsel Boston (Mass.) Elevated Railway; Aug. 13, 14, 15.
 A. C. BECK, Columbus Railway, Light & Power Company, Columbus, Ohio; Aug. 14, 15.
 L. J. BECHER, *Detroit Journal*, Detroit, Mich.; Aug. 12, 13.
 J. E. BENTON, solicitor Interstate Commerce Commission, Washington, D. C.; Aug. 14.
 C. P. BERMS, Washington, D. C.; Aug. 12.
 WILLIAM C. BLISS, chairman, Public Utilities Commission of Rhode Island, Providence, R. I.; Aug. 12, 13.
 ZENAS W. BLISS, receiver Rhode Island Company, Providence, R. I.; Aug. 12, 13.
 S. R. BOWEN, vice-president Washington Railway & Electric Company, Washington, D. C.; Aug. 11.
 A. W. BRADY, president Union Traction Company of Indiana, Anderson, Ind.; Aug. 13, 14.
 W. G. BRASHER, chairman Railroad Commission of Arkansas, Little Rock, Ark.; Aug. 11, 12.
 HARRY L. BROWN, *ELECTRIC RAILWAY JOURNAL*, New York, N. Y.; Aug. 11, 12, 13, 14, 15.
 J. D. BURKS, National Industrial Conference Board, Boston, Mass.; Aug. 12.
 WILLIAM P. BURR, corporation counsel, City of New York; Aug. 14.
 E. B. BURRITT, secretary American Electric Railway Association, New York, N. Y.; Aug. 11, 12, 13, 14, 15.
 P. P. CAMPBELL; Aug. 15.
 R. F. CARBUTT, engineer Henry L. Doherty & Company, New York, N. Y.; Aug. 14, 15.
 D. S. CARLL, vice-president Capital Traction Company, Washington, D. C.; Aug. 11.
 M. J. CHIESA, Rome, Italy; Aug. 12, 15.
 HARLOW C. CLARK, A. E. R. A., New York, N. Y.; Aug. 11, 12, 13, 14, 15.
 WILLIAM L. CLARKE, assistant secretary and treasurer Washington Railway & Electric Company, Washington, D. C.; Aug. 11.
 W. M. CLAYTON, attorney, Washington, D. C.; Aug. 12, 13.
 B. C. COBB, vice-president Hodenpyl, Hardy & Company, New York, N. Y.; Aug. 11.
 H. L. COBB, United Press; Aug. 14.
 H. A. COBB, Captain U. S. A., Scranton, Pa.; Aug. 14.
 A. T. CONNELL, Mayor, Scranton, Pa.; Aug. 14.
 THOMAS COOPER, Westinghouse Electric & Manufacturing Company, Philadelphia, Pa.; Aug. 11, 12.
 A. F. COUVIER; Aug. 12.
 JAMES COUZENS, Mayor, Detroit, Mich.; Aug. 12, 13.
 ROBERT DOUGAN, Press; Aug. 11, 12, 13, 14, 15.
 A. H. FERRANDOU, Washington Railway & Electric Company, Washington, D. C.; Aug. 11, 12, 14, 15.
 IRVING FISHER, professor of economics, Yale University, New Haven, Conn.; Aug. 14.
 W. J. FLICKINGER, assistant to president The Connecticut Company, New Haven, Conn.; Aug. 12, 13.
 JOHN P. FOX, transit expert, New York, N. Y.; Aug. 11, 12, 13, 15.
 C. P. GILLEN, Mayor, Newark, N. J.; Aug. 13.
 M. H. GLAZER, *ELECTRIC RAILWAY JOURNAL*, Washington, D. C.; Aug. 11.
 L. L. GOODMAN, *Detroit News*, Detroit, Mich.; Aug. 12, 13.
 C. A. GREENRIDGE, chief engineer The J. G. White Management Corporation, New York, N. Y.; Aug. 14.
 T. L. HALL, chairman Nebraska State Railway Commission, Lincoln, Neb.; Aug. 13, 14.
 E. K. HALL, Electric Bond & Share Company, New York, N. Y.; Aug. 15.
 J. H. HANNA, vice-president Capital Traction Company, Washington, D. C.; Aug. 11, 15.
 A. E. HELM, counsel Public Utilities Commission of Kansas, Topeka, Kan.; Aug. 15.
 R. T. HIGGINS, chairman Public Utilities Commission of Connecticut, Hartford, Conn.; Aug. 12.
 W. V. HILL, manager Washington office A. E. R. A., Washington, D. C.; Aug. 11, 12, 13, 14, 15.
 A. S. HILLS, secretary Utilities Publication Committee, Washington, D. C.; Aug. 11, 12, 13.
 W. HUGGINS, commissioner Public Utilities Commission of Kansas, Topeka, Kan.; Aug. 15.
 F. F. INGRAM, manufacturer, Detroit, Mich.; Aug. 12, 13.
 DUGALD C. JACKSON, professor of electrical engineering, Massachusetts Institute of Technology, Boston, Mass.; Aug. 14.
 M. M. JACKSON, attorney representing Mayor Key of Atlanta, Ga.; Aug. 14, 15.
 S. J. JONES, Minneapolis, Minn.; Aug. 11, 12, 13.
 C. P. JOYCE, Philadelphia (Pa.) Rapid Transit Company; Aug. 14, 15.
 C. S. KIMBALL, engineer of way and structures Washington Railway & Electric Company, Washington, D. C.; Aug. 11.
 C. W. KUTZ, lieutenant-colonel of Engineers, engineer-commissioner, Public Service Commission, District of Columbia; Aug. 11.
 W. R. MCCALLUM, *The Evening Star*, Washington, D. C.; Aug. 11, 12.
 GRENVILLE S. MACFARLAND, lawyer, Boston, Mass.; Aug. 14.
 FRED J. MACLEOD, chairman Public Service Commission of Massachusetts, Boston, Mass.; Aug. 15.
 F. W. MARVEL, sales engineer the Buda Company, New York, N. Y.; Aug. 12, 13.
 T. A. MELLE, manager of transportation United States Housing Corporation, Washington, D. C.; Aug. 12.
 D. M. MOORE, assistant engineer Washington Railway & Electric Company, Washington, D. C.; Aug. 11.
 CARL H. MOTTE, secretary Public Service Commission of Indiana, Indianapolis, Ind.; Aug. 12.
 F. B. MUSSER, president Harrisburg (Pa.) Railways; Aug. 15.
 LEWIS NIXON, Public Service Commissioner of New York, New York, N. Y.; Aug. 14.
 H. H. NORRIS, associate editor, *ELECTRIC RAILWAY JOURNAL*, New York, N. Y.; Aug. 11, 12.
 R. L. NORTON, *Boston Post*, Washington, D. C.; Aug. 15.
 JOHN H. PARDEE, president American Electric Railway Association, New York, N. Y.; Aug. 11, 14, 15.
 A. W. PAYNE, *Washington Times*, Washington, D. C.; Aug. 11.
 J. W. S. PETERS, lawyer, Washington, D. C.; Aug. 13.
 GARFIELD J. PHILLIPS, examiner Public Service Commission of Pennsylvania, Harrisburg, Pa.; Aug. 14, 15.
 H. B. POTTER, assistant general manager Boston (Mass.) Elevated Railway Company; Aug. 11, 12, 13, 14.
 WILLIAM F. RHEA, State Corporation of Virginia, Richmond, Va.; Aug. 11.
 LOBERT ST. CLAIR, Barron G. Collier, Inc., New York, N. Y.; Aug. 12, 13, 14, 15.
 FIELDER SANDERS, city street railroad commissioner, Cleveland, Ohio; Aug. 15.
 T. H. SAVILLE, city councilman, Scranton, Pa.; Aug. 13.
 J. N. SHANNAHAN, president Newport News & Hampton Railway, Gas & Electric Company, Newport News, Va.; Aug. 12.
 R. D. SIMMS, Capital Traction Company, Washington, D. C.; Aug. 14, 15.
 A. J. SIMMOTT, *Newark News*, Newark, N. J.; Aug. 13.
 K. K. SIMPSON, Associated Press; Aug. 11.
 CHARLES P. SWOPE, secretary to Senator Bois Penrose, Washington, D. C.; Aug. 15.
 C. L. S. TINGLEY, vice-president American Railways Company, Philadelphia, Pa.; Aug. 11, 12, 14.
 JOHN J. WALSH, lawyer and State Senator (member of street railways committee), Boston, Mass.; Aug. 15.
 BENTLEY W. WARREN, counsel A. E. R. A., Boston, Mass.; Aug. 11, 12, 13, 14, 15.
 B. T. WEADOCK, attorney Detroit (Mich.) United Railways; Aug. 12.
 J. W. WELSH, statistician A. E. R. A., New York, N. Y.; Aug. 11, 12, 13, 14, 15.
 R. W. WESTCOTT, Camden, N. J.; Aug. 14.
 GEORGE WESTON, consulting engineer Philadelphia (Pa.) Rapid Transit Company; Aug. 13, 14.
 T. S. WHEELWRIGHT, president Virginia Railway & Power Company, Richmond, Va.; Aug. 11.
 WILLIAM WIERTH, city councilman, Scranton, Pa.; Aug. 13.
 DELOS F. WILCOX, public utility expert, New York, N. Y.; Aug. 13.
 S. E. WOLFF, Hodenpyl, Hardy & Company, New York, N. Y.; Aug. 11.

made electrification the excuse for doing all they could to wreck the street railway business. The result is that the only way out of the difficulty to-day is to bring about an almost universal "housecleaning" in order to get the industry down to a sound basis of capitalization.

Glasgow, the witness pointed out, has paid off every dollar invested in the property, so that the transportation system has no fixed charges, and in addition a large amount has been set aside for depreciation each year. The Liverpool system has paid off about one-half of its debt, and in addition has accumulated a 60 per cent depreciation fund. This policy of the British tramways was contrasted with that prevalent in the United States where, the witness said, the rule seems to be that there should be no reduction in capitalization except that forced. The capital account is kept as large as it can be and still worry along. Under state regulation, even, the capital account has been increased rather than decreased, the difficulty here being that the state commissions have had jurisdiction over future securities and not over past issues. Another reason has been that the commissions have had no jurisdiction over the holding companies which have sprung up everywhere to finance the utilities. So the process of piling up capital has gone on. The stocks of the controlling companies, if not of the operating companies, have been sold, but the effect has been the same.

FARE COLLECTION SYSTEMS COMPARED

The second characteristic distinguishing the British tramways from the American street railways, the witness pointed out, was the system of fares adopted. In Great Britain the fares are arranged according to the distance traveled. Low fares are charged for short rides, while the fares for long rides are not high because of the low initial charge. This was contrasted with the flat fare scheme which has been cultivated in this country. In this connection it was pointed out that in Glasgow for the year ending March 31, 1918, the tramways had received more than 40 per cent of all the revenue collected, from passengers who paid 1 cent, and only between 2 and 3 per cent of the passengers paid as much as 5 cents of our money. A similar showing had been made in Liverpool.

The witness then pointed out the disappointing results which have been obtained from increases in the flat fare in this country, and stated that in many instances the companies have been so hard pressed for funds that they would adopt any means offered for increasing the revenue even if it meant that 50 per cent of the passengers would be lost, and irrespective of the ultimate effect.

To make more clear these comparisons of the British and American street railways, Mr. Wilcox presented the accompanying table comparing the operating results of the Glasgow tramway system with the Public Service Railway of New Jersey, making numerous allowances in order to reduce the two widely different properties to an approximately equal basis. Commissioner Beall interrupted the direct statement of the witness to question the reasonableness of the comparison, with such widely differing properties. Mr. Wilcox agreed that even with the adjustment he had made, it would still be necessary to make very large allowances or mental reservations, when looking at the apparent advantages indicated by the Glasgow system. Even with these allowances in mind, he thought that the re-

sults pictured by the table were most enlightening, and would have to be discounted tremendously to explain away the better showing of the foreign company.

Chairman Elmquist asked the witness if it were not true that the labor cost in Glasgow was very much less than here. Mr. Wilcox replied that the British labor rates generally were now about where ours were at the beginning of the war, and Commissioner Gadsden asked if it were not true that up until almost one year ago the British rate was about 15 cents an hour as compared with our maximum of 38 cents, to which the witness agreed. Asked about the night and Sunday service, Mr. Wilcox said he was unable to answer about the details entering into these results, having never been to Glasgow and having based his statement entirely upon the studies made by Walter Jackson for the ELECTRIC RAILWAY JOURNAL.

The witness then pointed out that the Liverpool system had also been prosperous and that it had carried 130,000,000 passengers per year at the beginning of the war, and 195,000,000 during last year. The average revenue per passenger was 2.37 cents and only 2.2 per cent of the passengers paid a fare as high as 5 cents or more. The number of passengers per car-mile was 15.98, and the total track mileage of the system was 124. The net debt of the company still outstanding is \$18,667 per mile of track.

Questioned if the people of this country would tolerate such small mileage, the witness said that conditions in the two countries perhaps represented the two extremes, but he thought that the small mileage was not necessarily an attribute of municipal ownership and called attention to the extent to which the San Francisco municipal railway is being built up.

GLASGOW MUNICIPAL TRAMWAYS COMPARED WITH PUBLIC SERVICE RAILWAY SYSTEM WITH RESPECT TO TRAFFIC, REVENUES, CAPITALIZATION, ETC.

Glasgow data taken from annual report for year ended May 31, 1918. Public Service railway data taken from annual report filed with Board of Public Utility Commissioners for calendar year, 1918, and other exhibits in the Public Service Railway rate case.

Item	Glasgow	Public Service Railway
Population served.....	1,150,000	2,111,955 (1915)
Passengers carried.....	430,946,566	404,991,768 (1)
Rides per capita.....	375	192
Total passenger revenue.....	\$6,833,102	\$19,102,346
Average fare paid by passengers, cents.....	1.56	4.72
Proportion of passengers paying 5 cents or more, per cent.....	2.25	76.22
Car-miles run.....	26,261,231	53,250,832
Passengers per car-mile.....	16.41	7.61
Kilowatt-hours per car-mile.....	1.56	3.73
Mileage of main track.....	198.25	790.23
Net debt per mile.....	Zero (2)	\$105,367 (3)
Net capital stock per mile.....	Zero (2)	\$97,756 (4)
Passengers per mile, main track.....	2,173,753	512,498
Passenger receipts per mile of main track.....	\$34,416.60	\$24,173.15

Construction cost of Glasgow system, including power plant, shops and everything complete.....	\$18,798,968
Capitalization of Public Service Railway system.....	\$160,514,150
Construction cost, Glasgow system, per mile of main track.....	\$94,825
Capitalization, Public Service Railway system per mile of main track.....	\$203,123
Construction cost, Glasgow system, per passenger carried (in a year), cents.....	4.36
Capitalization, Public Service Railway system per passenger carried (in a year), cents.....	39.67

1. This is the number of passengers paying initial fares as estimated by the company in its zone report (Exhibit P-316, page 145), plus the number of transfer passengers. In Glasgow, where the zone system is in effect, no transfers are given. Thus the number of passengers carried means in each city the number of separate car rides given to passengers other than "deadheads."

2. The Glasgow tramways were acquired by the city in 1894, and were soon thereafter electrified. The entire bonded indebtedness was paid off out of earnings by 1917, and up to May 31, 1918, the tramways had contributed \$4,781,000 to the "common good" for the relief of taxation. Of this amount \$864,000 was contributed in 1918. The tramways also pay taxes directly, which in 1918 amounted to \$380,867, the equivalent of 5.57 per cent of gross receipts, as compared with 8 per cent paid by the Public Service Railway.

3. Includes with bonds the sum of \$1,169,118 advanced by the United States Shipping Board for extensions and additions in 1918; also \$150,000 bonds of Paterson State Line Traction Company, a subsidiary whose trackage is included in the Public Service Railway system.

4. Includes with capital stock, \$3,475,347 of capital supplied by Public Service Electric Company, upon which the Public Service Railway pays a fixed charge of 6 per cent per annum.

Turning his talk to the subject of over-capitalization and intercorporate complexities, Mr. Wilcox cited the detail history in these respects of several companies. He believed that the hatred of the public toward the street railway companies was the result very largely of stock manipulations.

He thought there was no other way to overcome this public attitude and continue private operation and ownership except to reduce the business to a sound financial basis. Even that may fail, he thought, for transportation is so much a public function and in such a vital way that any private company producing this service is likely to be looked upon as a great source of corruption.

Despite this feeling of the public, Mr. Wilcox said

that the companies should not be "soaked" with taxes, that the mischief had been done and it was difficult to undo, and heaping on taxes would not solve the situation. While the witness said he did not criticize state regulation, he thought that the setting up of state commissions had brought about two conflicting forces acting upon the street railways in many cities, resulting in a bad conflict between city and state bodies which was not getting anywhere. Contracts

and settlements entered into by the city were not permanent in view of the power of the state commission to interfere. He believed that in general it was desirable that the state commission should control the issuance of securities, the accounting methods and reports, and those car lines not subject to municipal control. But he was very strongly of the opinion that the urban community should have absolute control of the service and rates, and whether there should be a flat fare, a zone fare system, a subsidy, etc. He answered in the affirmative a question from the commission as to whether the state commission should have appellate jurisdiction over the valuation of a property, but he thought that the city should also have the privilege of contesting the value with the company, before the commission.

FOUR FUNDAMENTAL PROBLEMS

Mr. Wilcox was of the opinion that the difficulties of the industry could be reduced to four fundamental questions as follows:

1. Should the character of street railway investment be speculative or non-speculative?
2. Should the business be conducted primarily for

profit or primarily for service; which motive should predominate?

3. Should continuity of service obtain?

4. Shall the business be conducted by the public or by private interests?

On the first question, Mr. Wilcox thought that the investment should be non-speculative. This meant that the first step in bringing about such a condition would be to determine a sound valuation and then adopt a system of fares which would be flexible in order to permit of the permanent integrity of the investment. The plan must involve the physical upkeep of the property and insure against ruinous competition. It requires that the investment shall continue in service until paid off and involves the necessity to amortize at least a part of the

capitalization in order to keep the capital account well within the present physical value at all times. If the rate of return is fixed, the witness thought that this rate need be only relatively low and that the rate of return did not need to be changed on money once invested. It might, however, be necessary to vary the rate for new capital in order to meet the conditions of the money market. If it is necessary for a company to sell its securities at a discount, he



Just emerging from a hearing, Chairman Elmquist and Vice-Chairman Sweet are seen in characteristic attitude, talking over some point. The camera has also registered the presence of beautiful background.

thought allowance should be made for this discount, but it should be done by amortization and not by putting it into the capital account.

On question 2 Mr. Wilcox said that service should be the controlling motive at all times and that the exigencies of profit should not in any event determine the policy. The rate of fare should be determined by the best interests of the community from the social point of view, if necessary making up deficit out of taxes rather than to prescribe rates which would work to preclude the use of the transportation for some people.

On question 3, as to the continuity of service, Mr. Wilcox stated that some means must be devised to prohibit strikes, and that effective arrangements for bringing about a settlement without a strike must also be provided. He thought that employees should be encouraged to organize and that public utility operatives would get along better if they were permitted to participate in the active management of the utilities. The responsibility for hours, wages and conditions of labor must be fixed by the public, for the public has such a primary and responsible interest in these things that it must have control.

On the question of public or private operation, the witness had come to the conclusion that no solution of the present difficulty was possible unless we turn to public ownership and operation, for the industry was essentially a public function. The irreconcilable conflict between company and public interests tends toward corruption, and he thought that the public would not stand for the tax exemptions and other conditions necessary to permit the private company to operate at a profit. He thought that state regulations had in large measure broken down, the present condition of the industry being proof of that, and that this had resulted in increasing the differences in the conflict between municipal and state jurisdiction. The cost of new capital under private ownership is becoming prohibitive. Greater risk must necessarily involve a higher rate of return. Mr. Wilcox said that even if 8 per cent were allowed on the present capitalization of private companies, the cost of new money would be at least double what it would be under public ownership. Referring to profit sharing and service-at-cost franchises under private ownership and operation, Mr. Wilcox believed these resulted in the loss of the good features of private ownership without gaining the advantages of municipal operation.

In the New York situation, he said that the preliminary requirements would be the pooling of all companies into a single interest in order to make effective an increase in fare to any of them, but such an increase in fare is distinctly contrary to the policy to which the city has committed itself. It has spent \$250,000,000 of its own money to insure the 5-cent fare and has nearly broken its back financially as a result. To grant an increase in flat fare would be a reversal of policy. Asked by Commissioner Gadsden if the city could not mend its back and its policy at the same time by granting an increase in fares, Mr. Wilcox replied that he was not sure for before the city could receive any benefits from the increased fares, the Interborough Company's preferential contracts would absorb all of the increase in revenue for a long time to come.

MR. WILCOX'S SOLUTION

Asked by the commission what recommendations he would make then, for the solution of the difficulty, Mr. Wilcox said he would first clear the air by a plain declaration for municipal ownership. He would have all of the states enact the necessary constitutional amendments to provide the power to the municipalities. He would likewise have legislation providing power to the municipalities to realize their own full power of credit. Commenting on how Seattle purchased its street railway system, the witness pointed out that the Washington law not only permitted acquisition, but provided for the issuance of bonds outside of the debt limit by securing these bonds by a first lien on the gross earnings rather than on the property itself. That is reversing the usual process of dividing the gross earnings. On this basis the City of Seattle has issued 5 per cent bonds, but Commissioner Beall interjected that he understood that these bonds could not be sold.

Mr. Wilcox would also have a law to provide that the property be acquired at a price fixed by an intelligent tribunal which would give due regard to the franchise obligations. He said the people were averse to condemnation proceedings. In carrying out the plan to acquire for municipal ownership and operation, the witness said he would be very careful that the

right procedure was being followed, but that in any event the plan should be carried out. He added that legislation creating state commissions where they did not now exist was also desirable and that the zoning plan of fare collection might well be adopted.

He would install a zone system where the 5-cent flat fare is not adequate. He would operate motor buses as feeders to the electric lines, but not as a complete system in themselves, citing that this feeder plan was now being utilized in San Francisco. It forms an admirable way of handling the outlying thin traffic.

Speaking of the jitneys, Mr. Wilcox said that it was very difficult to regulate them because public sentiment favored their operation, particularly where they were willing to carry people for 5 cents, with higher street car fares. While he did not believe in competitive systems, he did not think that the people would stand for such rigid regulations as would force them off the streets. He agreed, however, that under municipal ownership jitney bus competition would not be permitted. He pointed out that in New Jersey the jitneys seem to be carrying a larger proportion of non-rush-hour traffic than of rush-hour traffic, and that they were therefore deadly competitors. In the Public Service Railway territory, the jitneys are carrying 80,000,000 passengers a year, or approximately 20 per cent of the total traffic. In Newark the returns show that from May, 1918, when the company had a 5-cent fare in effect, until May, 1919, when a 7-cent fare was being collected, the jitneys showed a 107 per cent increase in traffic, while the Public Service traffic fell off 7 per cent. As to the future, the witness believed that both methods could not live together and that the jitney system could never be adequate in large cities, though it might suffice and win out in cities of 100,000 population or less.

The witness expressed the opinion that street railway stocks should be issued under a municipal guarantee, whether the property was municipally operated or not, for it was cheaper for the city to do this than to have some one else take the risk. He said the public would probably not make such a contract unless with a service-at-cost franchise it could be sure of a corresponding reduction in the cost of the service. Municipal contracts should not be abrogated until the value of the property has been fairly determined, subject to the terms of the contract. He pointed out that franchises are now a liability and not an asset as they had been in years before. This fact should be considered to the advantage of the city in arriving at any valuation. In other words, the municipality should hold to its bargain, perhaps tempered somewhat. What was a good franchise to sell the city, should now be a good liability to trade on.

Discussing the rate of fare, the witness stated that it should never be increased to the point of driving away traffic. Questioned about transfers, he said that the free transfer was part of the theory of the flat fare, but that with a properly worked out zone system he believed no transfer was necessary. He then discussed the plan of the zone system which is about to be carried out by the Public Service Railway of New Jersey (fully described in the *ELECTRIC RAILWAY JOURNAL* for Aug. 9, 1919) and mentioned how this company had considered a stand-by charge and a movement charge in arriving at the proper rate. He said he could justify a stand-by charge for such utilities as supply water, gas, electric light, telephone, etc., but he could not for

street railway service. The difficulty here was that the same passengers continued to pay the stand-by charge over and over again, while the person who very rarely used the service, and for whom the stand-by charge was justified, paid this charge only on rare occasions. When it was brought out that 3 cents was to be the initial charge in the Public Service zone plan, and that this covered a ride of one mile, Dr. Meeker of the commission expressed the belief that this charge was so high for the length of ride that very few people would ride.

Asked about the applicability of one-man cars, Mr. Wilcox said that he believed they could be used to great advantage on 65 to 70 per cent of the trackage of the country. Questioned on the value of the skip stop, he said that it did not warrant much consideration in the general solution of the difficulties, for in the smaller towns where the service is comparatively infrequent, a skip stop would tend to make the service more inconvenient and would thereby lose traffic. He conceded the skip stop to have some value in large cities, but said he believed it could easily be overdone. In reply to a question from the commission, Mr. Wilcox said that he did not know how the

"housecleaning" of which he had spoken could be brought about except through receiverships, and this would only bring the desired result provided a plan beyond the receivership was well worked out in advance. He thought that municipal ownership could be brought about quite soon, but that the question was as to whether it would be brought about right. Dr. Meeker asked if a receivership was not a very expensive procedure, like burning down a barn to get rid of the rats. Mr. Wilcox answered that it might be made the agent to bring about a proper basis of capitalization on which to permit the company, through a service-at-cost franchise, to earn a reasonable return.

In answer to further questioning from the commissioners, it was brought out that Mr. Wilcox favored the indeterminate permit, provided that a plan of amortization of capital out of earnings was included as a condition. He said he could not get away from the conviction that ultimately the ownership of the street railways must be vested in the public, and if that were true, any policy which prevented the city from making a start should not be entered into. As to the best solution possible under private ownership, the witness said that this was undoubtedly the service-at-cost

franchise with a provision for purchase by the city provided that the state legislature supplied the enabling acts to make this actually possible at any time the city found it necessary to take over the property.

He then mentioned again the difficulty which the holding companies placed in the way of consummation of such a plan. He said that these holding companies enter into arrangements which are not binding upon the operating company, yet form a hidden control which does not leave the operating company a free agent to carry out what is best for the city in the way of service. Municipal authorities are not permitted to look at the books of the holding company, so that there exists a hidden power which cannot be investigated. This same situation exists when a utility is owned by

an individual, it was pointed out by Commissioner Gadsden. Referring to the statement of the witness on the continuity of service, one of the commissioners asked him to explain further how he would prevent strikes. He said that he thought it would be possible to provide a law which would make it a penal offense for the employees of any essential industry to conspire to stop the work. This would not in any sense take away the right of the individual to resign. Mr. Wil-



Hon. Wm. D. B. Ainey, who gave the Commission much food for thought, and his friend Frank B. Musser, president of the railway in Pennsylvania's capital, occupied our impromptu stage at the moment we signalled the camera man to "shoot" this picture.

cox pointed out that the real problem was to get a plan which would remove the legitimate cause for the strike, so that labor would feel that it was properly taken care of in the public estimation.

Asked by Commissioner Sweet whether in his opinion it would not be better for the commission to recommend a general adoption of the Cleveland plan, assuming that a satisfactory appraisal would be made and the necessary enabling legislation provided to make purchase possible, than to attempt now to secure municipal ownership at one jump, the witness replied in the affirmative. He said the preparation for municipal ownership cannot be done overnight, and that meantime the service must be continued and that the service-at-cost plan probably offered the best intermediate procedure.

Thursday's Sessions

Commissioner Lewis Nixon of New York was the first witness to take the stand Thursday morning. He declared it to be his belief that municipal ownership would come in the fullness of time in New York. He said it would be extremely difficult to take over the property at this time and that legislation was

necessary in order to clarify what the city could do. The contracts between the companies and the city are very clear, he said, and while the city authorities think that the companies should retire if they find it impossible to live up to their contracts, any such voluntary arrangement is impossible because if it were undertaken the stockholders would immediately bring about a receivership. Commissioner Nixon pointed out also that any plan of relief for the companies which involved an increase in fare could only be brought about by the companies relinquishing the contracts which they now hold and which are for a perpetual grant, and accepting in lieu thereof a new grant with a definite term. This is necessary because of the new city charter, which makes the granting of perpetual contracts an impossibility.

Mr. Nixon began his testimony by a brief review of local conditions in New York, touching upon the recent Brooklyn strike and the efforts which had been made toward securing relief for the surface lines by the granting of a transfer charge. He also mentioned the extreme congestion which is suffered in New York and said that the demands for transportation were far in excess of any engineering ability to meet them. He pointed out that the prime reason for the present difficulty was because of the high costs of labor and material and that the limiting of fares by franchise had made it impossible for the companies to meet the situation. Asked if the New York companies could operate on a 5-cent fare if they were all consolidated, he answered in the negative. It would simply save a few large salaries but these form such a trifling part of the several hundred millions of annual revenue involved that the saving is insignificant.

Commenting upon the great need for a sound valuation of all the transportation utilities in New York, Mr. Nixon said that he would like to see a board made up of members of such unquestioned integrity that when they had completed any valuation, the results would be acceptable to all, and would thereby provide a remedy for the present status of appraisals, adding that such a thing as an unquestioned valuation had never been made.

Asked if there was any jitney competition in New York, Mr. Nixon said that it had been carefully estimated that the companies lost about \$12,000,000 a year in revenue to the jitneys, which operated in some suburbs. He said, however, that this was rather welcomed for the volume of traffic was so great that the demand on all systems of transportation was overwhelming.

ZONE FARE PLAN POLITICALLY BARRED IN NEW YORK

In reference to the application to New York of the zone fare system, Mr. Nixon said that the present contract prevented its adoption. He said that he had studied it thoroughly and that it seemed to be the most equitable and logical way of collecting fares, but at the same time he hoped to see it possible to maintain the 5-cent flat fare. He could not defend the justice of the 5-cent fare, he said, but there is so much staked on the plan of the flat fare in New York that he did not believe it was possible to bring about a zone system. He then made the statement that with the return of normal times and the completion of the great subway system, and with the vast volume of business increasing with the age of the system and the perfection of

operation, that increases of earnings will come into play to such an extent as to make possible a fare of less than five cents. He anticipated that it would be possible to sell 12 tickets for 50 cents, with free transfers, in three to four years, provided that a give and take settlement was brought about. He said, however, that under present conditions of strife he was unable to look forward to any reduction in fares.

In answer to a question from one of the commissioners, Mr. Nixon said that he believed the Cleveland plan, with some modifications, could be applied in New York, and that he looked upon it as the most hopeful solution he could see. Such a plan would have to be based on a unit corporation basis, and he believed that consolidation would come about in time as a matter of common sense. Such a step would hurt some of the companies and help others. In speaking of the service-at-cost plan, he said that he favored it without any hostility to municipal ownership, this latter plan being simply impossible now.

Transportation is a public service of such deep vital interest to the public that it must not be held up by strikes. Some practical way of preventing them must be developed, and in this respect, Mr. Nixon saw better conditions ahead for he believed that labor was beginning to assume a better attitude toward its responsibility as evidenced by the recent strike on Staten Island where the union leaders refused to permit the men to strike since they would violate a contract in so doing. He thought that if the labor organizations were brought into a full understanding of the vital necessity for continuity of such services to the public, they would not take advantage of their power and would live up to contracts entered into.

NEW YORK WILL FIGHT TO THE LAST INCREASE IN FARES.

William P. Burr, corporation counsel, city of New York, began his testimony by asserting that the city had never been able to secure the complete financial history of the traction interests in New York and that complete data were necessary before any progress toward a solution could be made. He said that Stone & Webster had been employed to make a complete appraisal as a first step toward arriving at some basis of settlement between the city and the companies. He then gave extensive figures showing the profits, rates of return, etc., of the New York companies and complained of the unwillingness of the Interborough Company to retract one iota from the terms of its preferential contracts with the city.

Mr. Burr spoke of the necessity which Mr. Nixon had discussed, of the companies' relinquishing their perpetual contracts and accepting fixed term contracts before any assistance could be secured in the way of increased fares. And in this connection he said that the city would fight to the last any change in the contracts now in force. He said it would pay a large city to operate its transportation system at a loss, if necessary, in order to give the people an opportunity to spread out and lessen the congestion which would result from high flat fares or from zone fares. He said that the final solution was not easy because of the difficulties of the law involved, but that ways and means could be devised to make municipal ownership possible. He spoke of the great success with which the City of New York has operated its water system and from this drew the conclusion that the transportation system might be operated with equal efficiency and economy.

He remarked that "the fact that the New York Railways Company has twice been in bankruptcy does not speak well for the great men who have managed its affairs."

Mr. Burr also commented upon the set policy in New York to maintain the 5-cent fare and the \$200,000,000 investment of the city put behind that rate. He also referred to the broad development of the city based on the flat fare idea and emphasized the reticence the city had toward any change of policy.

GETTING AT THE BASIS OF THE TROUBLE

Irving Fisher, professor of economics, Yale University, was the next witness to be heard. He said that he assumed the commission was interested in getting at the fundamental reasons for the present conditions, not only in the electric railway industry, but in every other business, and asserted that the inflation of our money was the prime reason. He said that the war was only indirectly the cause of present high prices through the influence it had had in causing a flow of gold to this country. He showed a series of charts which pictured the trend of prices after all of the previous wars of history and brought out that not every war raises prices, nor do prices fall after every war. He was of the opinion that no downward trend of prices could be anticipated for a long time to come.

During a very interesting discourse on the unwholesome effect of our present money basis, he told of his plan for stabilizing the dollar by creating a dollar of variable weight and fixed value as a substitute for the present dollar of fixed weight and variable value. This plan was presented in the *ELECTRIC RAILWAY JOURNAL* for April 19, 1919, p. 780.

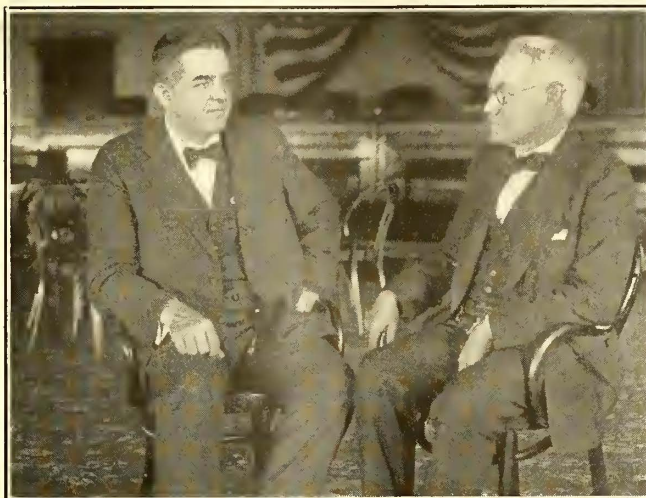
He pointed out that the evil of the fixed weight dollar was that many things, like the fixed street car fare, the wages of government employees and the salaried man in general, did not increase as the purchasing power of money decreased. He declared that 80 per cent of the unrest of the country is due to the depreciated value of money. The populism agitation back about 1890 was due to the appreciation of money which was forcing the farmers who had mortgages against their farms into bankruptcy, and that it had disappeared as soon as money began to change its upward trend. To-day the opposite condition exists and Prof. Fisher prophesied that the bolshevism movement, which is the outcome of a long period of rising prices, will disappear in a similar manner with the stabilization of money.

Speaking of the proper rate of return on capital invested in the street railway business, he said that if 6 per cent was a fair rate of return before the war, 12 per cent is the equivalent fair rate of return to-day. In other words, if a capitalization of \$100,000,000 was

earning 6 per cent before the war, or \$6,000,000, this same rate of return at the present time was producing six million "little" dollars which was equivalent to only three million "big" dollars, or 3 per cent. He also pointed out that if the 5-cent fare was right in 1896, then the equivalent fare to-day would be 15 cents; or if 5 cents is a fair fare to-day, then in 1896, two cents would have been a fair rate, assuming that labor and material have trebled as have prices of commodities.

Grenville S. MacFarland of Boston directed his testimony principally to the bad practices of private operation and the desirability for municipal operation. He said that there was no remedy for the situation under private operation which could be acceptable unless it provided an increase in revenue. He said he had rather see a community suffer some loss under public ownership than to have the old practices under private ownership continued. These practices were simply the inherent abuse resulting from an attempt to make private profit out of a public service necessity.

The witness was of the opinion that the enormous private gains which have been made out of the stock manipulation of the street railways have had an important bearing upon the increased living costs and that the elimination of all these corrupt practices through municipal ownership and operation would tend to reduce the costs. He believed municipal



William C. and Zenas W. Bliss, not brothers, but both Rhode Islanders and closely associated for many years. William is chairman of the Rhode Island Commission and as such has a finger on what Zenas does as receiver for the Rhode Island Company. Zenas is also chairman of the State Tax Board, so he must have to be Dr. Jeckyl and Mr. Hyde in handling the tax of the R. I. Co. Photo by Harris & Ewing, Washington, D. C.

operation of the roads would be more efficient than private operation.

Questioned by one of the commissioners as to what means of relief he would suggest for the industry meantime, while the long process of bringing about municipal ownership was being worked out, Mr. MacFarland replied that he thought "we ought not let the devil get well; make him act up to his profession." Chairman Elmquist asked if the commission should recommend that, and Mr. MacFarland said that the commission should state that the patient was sick and that municipal ownership was the remedy, and if the medicine was taken to-day it would begin the cure sooner, and if put off until to-morrow, the medicine would have to be used in increasing quantity. He thought that the present evil was in private operation more than in private ownership, and that private ownership with public operation would probably bring about a satisfactory condition. In reply to questioning, he said he believed the Cleveland plan was the best system under private operation, but that it had worked well because of special circumstances which would be hard to duplicate.

T. L. Hall, chairman, Nebraska State Railroad Commission, took the stand Thursday evening and testified in great detail concerning the financial history of the Lincoln Traction Company, bringing out the intercorporate complexities and illustrating the difficulty which



We spilled Secretary Burritt's ink the other day and so we're spilling some more here to make up. George Weston is at his left and the chap hiding behind this well-known engineer is J. W. Welsh, statistician of the association. Harlow C. Clark at the right is trying to find his head with his hat. Photo by Harris & Ewing, Washington, D. C.

the supreme court of the state which remanded it to the commission, the latter holding that the company had sufficient surplus in material and operating funds to warrant the commission proceeding first to establish a proper valuation.

Speaking of the labor problem, Mr. Hall said that the unions should guarantee labor without strikes, that the wage scale should be sufficient so that the men could establish savings accounts which should be deposited with the company and used in operating, the company to pay dividends on these savings, the same as it does on its stock. In other words, the company must take labor into consideration in its earnings. Mr. Hall concluded his testimony by stating that he believed in public ownership, but that commission control should continue just the same. He thought that public ownership of the utilities would eliminate stock jobbing and manipulation.

Mayor A. T. Connell of Scranton, Pa., made his mission that of informing the commission that he was dead against watered securities. He said that the Scranton company was trying to pay dividends on a total capitalization of \$9,076,000, of which \$3,800,000,



Here you see the genial president of the American Association, John H. Pardee, leading P. S. Arkwright, president Georgia Ry. & Pwr. Co. off to lunch. The "gum-shoe pose" of Harlow C. Clark, at the left, must have been inspired by something, but we absolve ourselves of all responsibility.

a commission faces in attempting to deal fairly with the company and the public under such circumstances. He also referred to the attempt of the Omaha Company to place in effect a 6-cent fare on an emergency waiting for a valuation of the property of preliminary study by the commission, the matter having been carried to

according to Dr. Delos F. Wilcox, was water. Despite this inflation of capital, he said that the state commission had granted the company a fare increase bringing the rate up to 7 cents cash and four tickets for 25 cents.

Questioned as to whether he thought the paving charge against the company ought not be removed from the street car riders, he said that he did not, that the street cars did more damage to the pavements through the working of joints than any other vehicles. He thought this was a legitimate revenue which the city ought to get.

At this point Mr. Ogburn, executive secretary of the Federal Commission, read a communication from the Central Labor Union of Kansas City, containing a resolution urging the Federal Commission to refrain from offering any help to the Kansas City company in its present financial straits until it should recognize the union.

Friday's Sessions

William D. B. Ainey, chairman, Public Service Commission of Pennsylvania, was invited to take the stand at the beginning of the hearing Friday morning. He confined his remarks very largely to a prepared statement which was read to the commission and which appears practically in full on a later page of this issue.

During the course of his statements, Mr. Ainey expressed his concern that the railway men had not placed before the public a clear, simple, direct statement of what they sought before the Federal Commission and what they could and could not do for the benefit of the public generally. He believed that the matter which has found its way into the public press has confused rather than clarified the minds of the people on the real issue. At this point Chairman Elmquist interrupted the witness and handed him a copy of the prepared statement submitted during the railway hearings by Harlow C. Clark, which Counselor Warren later explained was in effect a statement of the railway men's position.

Asked by the chairman if this statement did not answer his criticism, Mr. Ainey replied that from a cursory reading of it, his mind ran in harmony with it, but he said it was not his mind he was speaking of, but the public mind, and that in this respect he would reply categorically that the statement by Mr. Clark did not meet his criticism. He said that there was not a single thought in Mr. Clark's statement which would clarify the mind of the Scranton mayor, for example, in the views he held. Then the witness reiterated the need for publicity, concerning the position taken by the railway men at the Federal Commission, of a most simple and direct character. He commented that unfortunately the newspapers pick out only the radical and sensational expressions and that the results upon the average public mind of these piecemeal references to the hearings, carrying as they do a false impression, have been detrimental rather than helpful in improving the public understanding of the problem.

No one is so dependent upon the good will of the people as the railways, the witness pointed out, for they must have water, gas, and electricity, but when it comes to the street car ride, they have the alternative of walking. The railways thus occupy a different relation to the public than any other utility. The railway men may win the judgment and even commendation of the Federal Commission, but the judgment of this body will

avail them nothing if the public is not thereby won as well. He said that in the interests of the railways he was exceedingly solicitous that they should state in a simple direct way that they wanted, what they could do, and what they could not do.

As a specific example of the unfortunate publicity which has been spread over the country, he referred to Dean Cooley's statement that the best way to prove to the people the fallacy of municipal ownership was to encourage its adoption so that they might learn from experience how unsatisfactory it was and would then seek relief through a return to private operation. Dean Cooley's half joking reflex remedy would seriously be repudiated by every man, but Mr. Ainey said that it had won large space in the newspapers, and in fact much more space than any sound argument for or against municipal ownership would be given.

During his direct statement, Mr. Ainey diverted to mention with words of praise the success with which the Philadelphia Rapid Transit Company has met the increasing costs of operation through studies which have developed economies and through the splendid morale of the employees without the necessity thus far to increase the fare above 5 cents. He suggested that the commission should invite a witness from this company, and Chairman Elmquist asked him to suggest the name of some official of that company who could best present its accomplishments. Mr. Ainey said that he thought Mr. Joyce of the Philadelphia company, who was present, should supply that information, and it was understood that Mr. Joyce would later advise the commission on this question of the chairman.

During the cross-examination, the commissioners took up further the discussion of the proper publicity, which Mr. Ainey had stated had not been obtained. Commissioner Sweet asked the witness if he were right in interpreting Mr. Ainey's remarks to mean that what was desired was a plain declaration that the railways were not asking for a return on watered stock, etc., in order to counteract the extreme statements picked out for the headlines in the newspapers. Mr. Ainey agreed and added that the public does not know what is going on here, and is very likely to get an entirely erroneous notion of the hearing from the newspaper references.

Questioned about the delay of commissions in rendering decisions, Mr. Ainey replied that it was not always the practice to delay a decision in Pennsylvania until an evaluation could be made. He said the Pennsylvania commission had recognized the existence of an emergency and had fixed rates upon an increase basis as a temporary award while a more thorough study was made afterwards.

Asked about paving charges and similar burdens, Mr. Ainey said that the heaping of such burdens upon the street railways was probably due to an utterance of the United States Supreme Court in the early days of the industry in which it was set forth that the franchise privilege belonged to the public and that such a permit ought to be given only upon receipt of a substantial and continuing reward. On the question of public ownership, Chairman Ainey said that he had not yet arrived at the opinion that the public would get better service through public ownership and operation than it does through the initiative of private ownership. On the merits of the zone system of fare collection, he said that it had very substantial equities, but that he was not ready to recommend its adoption until some

company which thoroughly believed in it had given it a thorough trial. He said it should not be tried out by a company only lukewarm to the idea, and that results worth while could only be obtained when it was tried out in the hands of its friends.

Dugald C. Jackson, professor of electrical engineering Massachusetts Institute of Technology, fol-

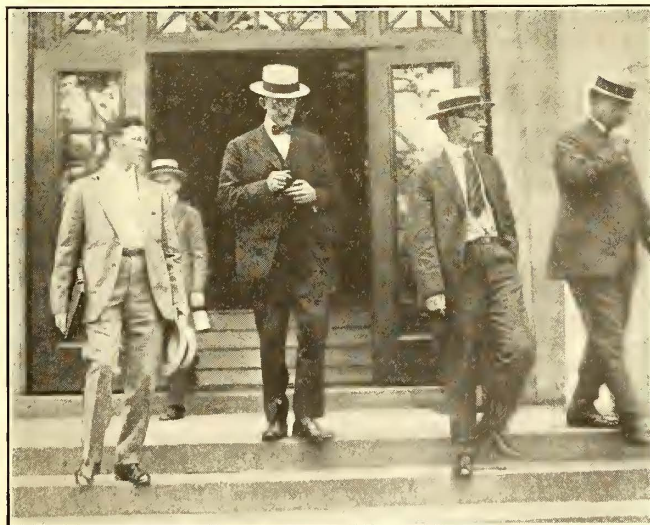
lowed Mr. Ainey as a witness before the Federal Commission. He followed very closely a prepared statement which appears in part on another page of this issue. During his testimony Mr. Warren interrupted to add the following figures concerning the Boston Elevated Railway to which the witness had made reference: In 1897 the investment in this property per \$1 of income was \$2.90; in 1918, it was \$6.37, and in 1919, \$5.38.

Fred J. Macleod, chairman, Massachusetts Public Service Commission, was the next witness heard, and he also read from a prepared statement which will be published in a later issue of ELECTRIC RAILWAY JOURNAL.

Fielder Sanders, city street railroad commissioner of Cleveland, then took the stand and very briefly reviewed in the fifteen minutes time he had available the features of the Cleveland plan from the public point of view. He said that this plan had certainly been a success from the company viewpoint, that the property was probably the finest in the country as was perhaps



The gentleman at the right is Prof. Irving Fisher of Yale, who would remedy the street railway difficulties by substituting a fixed-value, variable-weight dollar for our present fixed-weight variable-value coin. Photo by Harris & Ewing, Washington, D. C.



Three of Boston's able lawyers and a successful railroad president from the Mid-West. They are Senator Thomas J. Walsh, Fred J. Macleod, chairman of the Massachusetts Commission, H. W. Barnum, general counsel for the Boston "L," and Arthur W. Brady of the Union Traction Company.

indicated by the fact that the city tax commission was assessing the property at the par value of its stocks and bonds, less its credit. He continued that the plan has also been largely a success from the public point of view, for the service is excellent, and this always tends to satisfy the people. The fare has been uniformly low and the company is now in good financial condition, with its stock selling consistently above par. In spite of a 25 per cent increase in wages for practically all employees of the company, Mr. Sanders said that on July 8 the fare had gone down to 11 tickets for 50 cents. At this rate the interest fund was being depreciated \$80,000 a month, but he hoped that this rate of fare would carry through when the high maintenance expenditures of the summer season are past.

Mr. Sanders gave the following reasons for the success of the Cleveland plan: First, the low valuation, compared with other street railways; second, the franchise exemptions which relieved the company of the mill tax, bridge taxes, paving taxes, etc., and required the car rider to pay only for the cost of transportation; third, the development of the very latest ideas of operating economies and perhaps the fact that the average length of ride was not as long as in other large cities. He said that the success was largely due to the operating and financial support given the franchise by the city and also by the people. He said there was at present no crucial street car problem in Cleveland. It was his opinion that many people thought the company was now municipally owned and that they were receiving transportation at cost. He pointed out that 4800 of the stockholders of the Cleveland Company are local residents, so that the company may be characterized as a local enterprise. He was not sure that the service-at-cost plan was popular enough to make it a success in other towns.

Turning to the disadvantages of the Cleveland plan, Mr. Sanders pointed out the following: The reluctance of the company to extend its lines obtained as strongly under this plan as under the ordinary franchise. The city is limited by the terms of the franchise which specify that it may not require any extensions which would impair the value of the company's securities. This gives the company a basis upon which to refuse extensions.

The second disadvantage to which Mr. Sanders called attention was that the labor trouble is as inherent to this plan as it is in other cities. The city authorities have no control over the labor problems, who can only regulate but not operate the property. The company fixes wages and the city has no power to force the company to accept any particular agreement with its employees. And in the case of a strike, it is entirely the people who are the losers, since the rate of return to the stockholders is fixed. Mr. Sanders pointed out that the fundamental fault of the plan is that the party who makes the rate does not fix the wages. He thought that the city ought to have the right to fix wages if it must guarantee the return on the investment. In the recent strike, which cost the public, not the company, \$80,000, the city was placed in the difficult position of having to meet the demands of both the employees and the company, and endeavoring to appease both without the power to force either.

Questioned about the desirability of including an incentive in the contract to induce efficient and economical management, Mr. Sanders said that, academically, such a provision was good, but practically it was much

better to have a fixed rate of return, so that there would be no doubt in the people's mind as to how much the company was getting. Then he thought also that it was the natural tendency for a company to skimp the property in order to increase its earnings. It would be a very easy matter to cut down maintenance, for example, to easily realize an increase of 1 per cent in its earnings. This would be \$300,000 on the capitalization, he pointed out, and would be a very small part of the total sum paid out for maintenance, so that it might easily be lost sight of. He thought that if any one were to secure a bonus it ought to be the street car operators, the men.

Asked about the value of the indeterminate franchise, Mr. Sanders said that it was theoretically all right but that practically the definite term with the renewal privilege was better. The witness said that there was a good deal of municipal ownership talk in Cleveland, but it was not because of any antagonism toward the company. His own feeling was that some of the defects of the present franchise might be cured through municipal ownership, particularly the labor difficulty. Asked if he thought that municipal operation would be cheaper, he said he could not say, but he knew that it would not be any more expensive.

STATE SUBSIDY PROPONENT HEARD

Thomas J. Walsh, state senator of Massachusetts and Boston lawyer, and member of the senate committee on street railways, expressed his belief that after the car riders had contributed all that they will to the support of the transportation company "without noticing they are doing anything," the balance of the cost of the service should be contributed by the state. He commented upon the serious loss of riders in Boston with the increasing fares, and said that he was inclined to think that a 5-cent fare was the logical charge and that the effect this had in pleasing the public had a very distinct value. He thought that if the public was saddled with a portion of the expense involved from wage increases that it would be more keenly interested in keeping the operating costs down. Asked by one of the commissioners if it were not true that the employees would take the position, under the state subsidy plan, that the operating officials should not stand in the way of further wage increases, since this did not affect them but came out of state funds. To this the senator replied that he thought the American public could be depended upon to assert its rights and he would anticipate no trouble therefrom. He said the reason that the labor union men are now so successful is because of the cowardice of those they oppose and the want of more Rooseveltian courage. He said that the patriotism of labor had been largely submerged by the old slogans of human greed, but that he believed organized labor could not be successful unless it had the public will with it. He thought that the tide of public opinion was now running against labor, at least in so far as it has shown an inclination to ignore its contracts. He expressed the view that the tripartite arrangement would never work out and suggested instead that a better solution would be for capital to get a smaller but certain reward and permit labor to receive the speculative reward.

The witness stated in regard to public ownership that he believed private ownership was much more efficient, but that state ownership was inevitable because of the inability of the private street railway companies to get

new money. He said he thought the public trustees in Boston had been made the "goats" of the ir retrievable past of the corporation.

Senator Walsh presented the following thoughts which he had used in support of his bill, Senate 54, now pending, providing for a 5-cent fare on the Boston elevated railway with a subsidy to be paid by the several cities and towns served by it in proportion to the number of car riders from each.

1. *Economy of the proposal.*

a. It capitalizes the good-will inherent in a 5-cent fare by a large increase in riding without proportional increase in cost of equipment, personnel or overhead expense.

b. It makes for easier collection, smaller number of collectors and generally lower cost of administration.

c. It minimizes the temptation to practice fraud upon the road. Many feel justified in evading the 10-cent fare now, and conductors are more inclined to steal because of the public disfavor of the high fare.

d. It will noticeably increase the number of short-haul riders, a very large number of whom would be patrons in non-rush hours. The pleasure riders will be far more numerous at 5 cents, and pleasure riders make velvet income.

e. It holds up the values of suburban properties and also adds to the value of down-town realty by keeping up the normal rate of increase in every metropolis. Mercantile houses, all retail in-town establishments, all theaters and places of amusement and gathering-places of people, markets, in fact every business which solicits trade, will benefit, therefore all landlords of property so used will benefit. It is the bulwark of what is called by economists the "un-earned increment."

f. It makes the zone system unnecessary.

2. *Fairness of the proposal.*

a. It distributes the burden of an indispensable public utility which affects every one in the community, in an equitable manner.

b. It safeguards stockholders, as does the act of 1918.

c. All the people have paid for the development of rapid transit upon the theory that all were interested in it. They were invited to rely upon this scheme of development in buying suburban lands and building thereon. Their way of life was pivoted upon low transit fares.

3. *Social value of the proposal.*

a. It helps to reduce congestion; everybody deplures and seeks to prevent overcrowding of humans. We try even to prevent overcrowding of animals in freight cars on humane grounds. Congestion lowers public morale, makes pessimists; from pessimists come those who are easily poisoned by bolshevism. Congestion lowers human values in industry and commerce by taking the spring out of men and women and shutting them out from the amenities of life.

b. The present scheme is an undue burden on the poor. At the 10-cent fare which is now in force a person obliged to use the elevated twice daily on the average pays an excess of \$36.50 a year; a household of two riders pays an excess of \$73.00; and so on in proportion to the number of riders from any one household. Even if rents were raised to meet a subsidy tax they never could be raised so as to absorb the gain from a 5-cent fare. On the basis of a \$3 increase in the tax rate, let us see what these figures mean: \$36.50 means an increase of \$12,000 plus, and \$73 means an increase of \$24,000 plus, etc.

If the loss of patronage through high fares equals 50 million nickels a year, that amount is taken from the pockets of those who must ride. In other words the car riders who must ride are paying for those who do not ride because of high fares. Taking a normal increase of 25,000,000 riders as one extreme and a decrease of a like number under abnormally high fares, we see where we lose \$2,500,000. Under a 5-cent fare the amount of deficit to be made up is that much less than the difference between the total of 5-cent fares and the total of a higher fare. Why throw away that amount of money?

4. *Political value of the proposal.*

The 5-cent fare will make friends for the elevated road and for the principle of public control. It will silence the kicker and appease him. It will please the great majority who are the car riders, and restore their confidence in public operation. It will make the work of employees easier and the troubles of the trustees lighter. The latter will have a better chance to work out their problems in peace. I dare say the people will be more tolerant of annoyances

through poor and inadequate service. The 5-cent fare makes for comfort for everybody. A pleased public is a distinct asset in every community, and this pleasure is reflected upon every member of the community; on the other hand, a dissatisfied public is a serious menace to progressive legislation, for every measure will be viewed with suspicion. A light public spirit is as pleasing as a light spirit in an individual.

As a matter of practical politics I should have in all tax bills in the cities and towns affected by this measure an item called, for example, "Transportation Subsidy," so that the people would know just what they were paying for this service. This new item, representing a daily actual saving to each citizen, may be used to justify economy in other municipal expenditures, and make municipal administrators keen against waste and inefficiency. It will force economies in operation to keep down the tax rate.

There are now no cheery riders on the elevated, no cheery employees and no cheery managers. Everybody is sore and vindictive, railing in vain against the wrongs of the ir retrievable past. This bill, providing a 5-cent fare and subsidy, takes nothing from anybody and gives much to everybody. The soundest fare for metropolitan areas is the limit the public, mostly fairly disposed, will pay without reluctance.

Dividends should not be proportioned to original investment or par value but to actual present value. There is no public sympathy for railway security holders because their investment was predicated on the hope of heavy speculative returns. They ought to stand or fall with the varying fortunes of their gamble, with any political promoters like the Public Control Bill of 1918.

Marion M. Jackson, attorney, representing Mayor Key of Atlanta, Ga., occupied the stand for the remainder of Friday evening and was the last witness to be heard on the public side. Mr. Jackson brought the message that municipal ownership offered the only solution of the present difficulties, which he believed to be very largely the result of the stock manipulations by the private companies. He reviewed the financial history of the Atlanta companies in great detail, endeavoring to show how with every consolidation which had taken place there had been a considerable inflation of the capitalization. Commenting on the service-at-cost franchise in Cleveland, he said that this plan was put in because it was impossible to have municipal ownership in Ohio at that time, and that it was therefore only a makeshift. His principal mission, he said, was to induce the Federal Commission not to make any recommendation which would act as a club against municipal ownership. The mayor for whom he spoke was elected on a municipal ownership platform, said the witness.

The testimony on the public side having been completed, Mr. Warren, counsel for the railways, sought opportunity to place at the disposal of the commission several statements prepared by the American Electric Railway Association in answer to questions that had been raised by the commission during the previous hearings. Some of this statistical information will be published in a later issue of ELECTRIC RAILWAY JOURNAL. A statement by J. A. Emery, of the firm of Ford, Bacon & Davis, was entered in the records at this time. An analysis of the income accounts of the street railways was presented in this statement which appears in part elsewhere in this issue.

In closing the testimony of the public side, Secretary Charlton Ogburn, who had acted as counsel for the public on behalf of the commission, called attention to the 12 per cent flat increase which had been awarded by the War Labor Board as its final act. This brought the maximum scale of the Board from 48 cents an hour up to about 54 cents an hour. He also announced that the Pittsburgh men had rejected this increase and had gone on strike the evening before (Thursday evening). The employees of the East St. Louis lines did the same.

Traction Situation in Seattle*

Events Leading Up to Purchase by City of the Street Railway System, and Operating Statement for the Quarter Ending June 30, 1919

By MAYOR OLE HANSON

Seattle, Wash.

SOME years ago the Puget Sound Traction, Light & Power Company, operating most of the privately-owned street railway lines in Seattle, filed with the Public Service Commission of the State of Washington an application to be relieved from certain franchise obligations relative to paving of its right-of-way, payment of proportion of its gross earnings, and payment of bridge rental and other franchise obligations.

Because of this pending application the company did not comply with its franchise obligations. A decision was finally rendered by the Public Service Commission in a similar case coming up from the city of Tacoma, wherein the Public Service Commission decided adversely to the railway's contention.

The city of Seattle also was successful in its various suits in the Superior and the Supreme Courts of the State to enforce payment of gross earnings, taxes and payment of proportion of bridge rental. The long record of litigation between this company and city resulted in the rapid crystalizing of public sentiment to a point where it was shown that the Puget Sound Traction, Light & Power

FINANCIAL REPORT FOR QUARTER ENDING JUNE 30, 1919

	Current Year	Previous Year
Revenue from transportation.....	\$1,273,018	\$1,115,076
Revenue from other railway operations.....	26,021	20,046
Total revenue.....	1,299,039	1,135,122
Operating expenses.....	1,052,727	840,713
Deductions.....	239,503*	
Net operating revenue.....	6,809	294,409 ²
*Includes interest, \$198,781		
Damage claims 20,000 ^b		
Industrial insurance 20,722 ^a		

\$239,503

- (a) The Industrial Insurance shown above has not been paid as no demand has been made by the commission. This amount, however, is a proper amount to be apportioned for this period.
- (b) As the city paid out about \$1,000 for damage claims we have set aside arbitrarily the sum of \$20,000 as a proper amount to be charged.

	Current Year	Previous Year
Operating expenses.....	\$1,052,727	\$840,713
Way and structures.....	84,079	55,599
Equipment.....	146,461	76,197
Power.....	179,979	194,398 ¹
Conducting transportation.....	599,672	352,346
Traffic.....	478	2,270
General and miscellaneous.....	42,058	159,905
Kw.-hr. purchased.....	17,035,346	18,514,119
Car-miles.....	4,146,850	3,386,350
Car-hours.....	442,572	347,360

An average for depreciation would ordinarily be \$75,000. Owing to the fact, however, that our maintenance charges are heavier by \$98,744 than the same period last year, we feel that we have appreciated the property and that no depreciation should be charged.

¹ This figure was computed from the number of kw.-hr. and the unit cost of the current year.

² Presumably there are deductions that should be made from this figure but the report supplied includes none.

Company could no longer enjoy the good-will necessary to operate its street railway property.

The company was also in dispute with its employees as to a proper scale of wages, and was unable at the scale of wages it was paying to secure an adequate number of men to operate its cars; it had as much as 20 per cent of its equipment in the carhouses at one time, although these cars were imperatively needed to take care of the transportation of the shipyard workers. The city officials endeavored to adjust in an amicable manner the points at issue between the company and the city in order that better service might be provided for the public, and on July 6, 1918, I sent the traction company a communication in which I indicated willingness to co-operate with the company in every way, even waiving for the period of the war certain

franchise obligations, and also co-operating with the company so that operating economies would be effected in the following manner:

SUGGESTED METHODS FOR EFFECTING ECONOMIES IN OPERATION

1. Inauguration of a system of skip stops by which the company expected to save \$100,000 per year.
2. Elimination of street congestion due to standing and parking of motor cars at curbs. This the company expected would result in a saving of approximately \$100,000 per year, as a faster running time could be maintained through the business section.
3. Permission from the city to use the new bridge in the north section of the city, by which faster running time could be made.
4. Transfer exchange between the Municipal Railway lines and the company's lines.
5. The right to use idle cars of the Municipal Railways on a fair rental basis.
6. Emergency interchange of power between city and company.
7. Assistance in staggering of school hours and shopping hours to relieve peak loads.
8. Extra charge of 1 cent for transfers on certain lines, which would mean a probable extra revenue of \$200,000 per year to the company.
9. Discontinuance of service on certain lines where service was being maintained only to hold the franchise.
10. Relief during the period of war from compliance with the paving obligations of the company's franchises. The unfulfilled paving obligations to this date would have required the expenditure of approximately \$400,000.

These concessions were to be contingent upon the company's consenting to increase the pay of its employees so that \$4 would be the minimum wage for eight hours, and also to pay its past due percentage of gross earnings and to operate all the cars available.

NET RETURN ALLOWED DETERMINED BY INCOME OF PREVIOUS FIVE YEARS

The city then entered into conference with the company on the points involved, and on July 11, 1918, the City Council adopted a recommendation to permit the company to earn an average net amount during the war equal to that earned during the previous five years and to bring about the necessary fare changes to make this possible. In compliance with this recommendation the Department of Public Utilities submitted a report on Aug. 17, 1918, during the discussion of which I made an offer to lease for the period of the war the street railway property upon the understanding that it was to be kept in as good condition as when turned over to the city; that the company would receive a net return equal to the average net return it had earned on its properties for the last four preceding years; and that the city of Seattle would purchase direct current power for the railway system from the company at the rate of 1 cent per kilowatt-hour on the trolley feeder lines.

On Sept. 6, 1918, after a thorough investigation the City Council offered \$15,000,000 for railway property payable in 5 per cent utility bonds. The city agreed to purchase direct-current power from the company at 1 cent a kilowatt-hour at the trolley feeders. The company accepted the proposition Sept. 13, 1918. On Jan. 8, 1919, the ordinance providing for the acquisition of the street railway lines was approved. The retirement of the bonds at the rate of \$833,000 a year beginning Feb. 1, 1922, was specified in the ordinance.

The city was further bound by the ordinance to charge such rates as would provide for the payments of interest and capital specified. In the litigation incident to the purchase of the street railway properties the City of Seattle was successful both in the lower court and in the Supreme Court of the State, which on March 5, 1919, confirmed the legality of the proceedings by which the city aimed to acquire the property. On March 31, 1919, the proceedings were finally consummated and municipal operation began at 11 p.m. on that date.

*Abstract of Statement sent to the Federal Electric Railways Commission, Washington, D. C., and read by Charlton Ogburn Aug. 13, 1919.

State the Facts to the Public*

Plain, Simple Publicity Needed—Criticism of Commissions Refuted—Fundamental Faults Outlined and Remedies Suggested

BY WILLIAM D. B. AINEY

Chairman, Public Service Commission of Pennsylvania

WITHOUT adequate electric railway service the economic, social and industrial life of the nation is seriously affected, if not paralyzed. Its continuance upon a sound and efficient basis is of paramount importance and that continuance cannot be assured to the public without affording to these companies adequate revenues enabling them to produce it.

My acceptance of your invitation to appear before you is not predicated upon the assumption of the possession of any fund of knowledge on my part which would enable me to present to you a four-cornered plan by the application of which the difficulties surrounding the railway would disappear. I shall content myself by suggesting for your consideration a line of inquiry which I believe has in it, elements of substantive helpfulness. I have some objection to placing myself in the position of a mere doctrinaire and an abhorrence for the vacuum of immature theories. I am convinced, nevertheless, after some careful consideration of the difficulties toward which you are devoting your attention, that there is no single plan of general applicability to all companies and to all localities and to all conditions. I cannot accede to the suggestion that you have a problem before you; on the contrary, I must, with due deference to these distinguished gentlemen who differ, insist that you are confronted by several problems predicated upon different factors and requiring various answers as differentiating circumstances play upon particular companies and localities.

If, then, I may with full appreciation of these problems as they affect the railway and the public help in clearing away the underbrush so that we may obtain an unobstructed vision into the fields beyond, I shall have at least fulfilled the actuating purpose of my presence.

1. There are widely varying conditions both with respect to the state laws and the economic policies enforced therein under which electric railways are permitted to operate.

2. Within each state the localities which these companies serve vary so radically as to prevent a conclusion which we might reach with regard to one being applicable to another.

3. The companies vary with respect to their corporate history, the circumstances under which their roads were constructed, and the extent and character of the population which they serve.

Necessarily the increases in cost of operation will not equally affect the net returns of all these companies, and so we may have 5, 6, 7, 8, 9 and 10-cent fares each reasonable and severally yielding adequate returns.

We would be blinded to the obvious, however, if we did not recognize that every electric railway of the land has felt the heavy weight of these increases. They exist, and must be paid. It is, therefore, a part of our duty to ourselves, and the public which need them, to

aid, in our own selfish interests, in maintaining the railways as efficient public servitors.

We would rapidly retrogress, as a nation, into conditions similar to those which confronted the world in the dark ages, were we to be deprived of the services of and means of inter-communication provided by railroads and railways.

The public which constitutes the patrons and provides the revenues will not in my judgment have the least difficulty in agreeing with the carriers that the increased costs of operation ought to be, yes, must be, reflected in the rates of fare which they are called upon to pay. Neither will they controvert the fact that railway service is a national necessity in the conduct of business and in providing for the convenience of the country, but there are other matters concerning which they are in doubt and as to which they have not been advised, and every man is inclined to resolve the doubt in his own more immediate interest. They are entitled to the assurances which can only come to them through definite clear-cut information, free from vague generalizations. If I am able to judge, the psychological influences which are at work against the public acceptance of increased fares are that there is a belief that some companies are over-capitalized or are extravagantly managed whereby the incomes are diverted and the public overburdened. This is the psychology of the case.

FEDERAL HEARINGS HAVE HELPED CONFUSION OF ISSUE

In this connection and as emphasizing this point, let me express in no unfriendly spirit of criticism my astonishment at the incertitude and confusion with respect to remedies which appear in the testimony of the railways and allied interests which have been presented before you. Notwithstanding many notable and instructive statements, that of President Pardee coming uppermost to my mind at the moment, there is on the part of the railways a remarkable lack of cohesive or constructive suggestion as to what ought to be done. I have no doubt this is the result of an attempt to nationalize the subject, to generalize where generalization was impossible and to hazard conclusions which might have application in some states and to some localities but not to all.

Take the following thoughts which were carried extensively in the public press and consider their effect upon the car riders whose good-will it is admitted by the railways must be won. I have gathered from a hurried perusal of your hearing records that the testimony of the railway witnesses ranges from the advocacy of municipal ownership, not as an effective remedy, but on the penalizing theory that it was bad and that the public when sufficiently punished would in a repentant frame of mind give more friendly support to private ownership; to requiring the public to pay fair return

*Abstract of Statement made before Federal Electric Railways Commission, Washington, D. C., Aug. 15, 1919.

on watered stock. There have also been indirect statements, if not direct ones, intimating that public utility commissions were politically created and as such, with ears continually to the ground, were too timid or disinclined to grant the full measure of relief to which the railways were entitled. It is such expressions that bring doubt in the public mind as to the good faith of these companies and undermine the public's confidence in the integrity and fairmindedness of commission decisions. Particularly is this likely to be so when these decisions support increases.

Again emphasizing, as I believe I have the right, my full and sympathetic appreciation of their difficulties, it appears to me that the electric railways have pyramided an admittedly serious situation, which requires at your hands most careful and helpful attention, by at least a mild form of hysteria, which does not. Suggestions that patrons pay dividends on watered stock or on "capitalized hopes," that dividends on all capital be doubled because of the lessened value of the dollar, do not go far in wining public confidence, or gaining public support, when read by these patrons in daily newspapers. It necessarily distracts all our minds from the point in issue, from increased costs of maintaining service, to increased dividends to stockholders. If, therefore, the companies which are burdened with over-capitalization or unnecessary corporate complexity will put their houses in order fairly and fearlessly, they will have laid the foundation upon which they may establish public confidence and receive public support.

The valuation basis for rate-making purposes, in every state in the Union where regulatory authority is exercised, rests primarily under the law upon original costs and reproduction costs new; in other words, upon the fair value of the property devoted to public service. Upon that fair value, every company is entitled to receive a fair rate of return, in addition to the costs of operation, including the increases in labor and material items, and a reserve fund for depreciation; and I am quite content to add, an allowance when tangibly expressed for economies in operation. I believe these allowances should be generous and not trimmed to the bone.

PUBLIC MUST KNOW FACTS IN FULL

Are the electric railways willing to stand actually as well as theoretically upon these revenue grounds? If so, I need make no promises for the Pennsylvania Public Service Commission. Its deliverances from time to time, and some of which have been specifically called to your attention, are sufficient to establish that it will fearlessly and justly perform its duty with due regard to the carriers and the public.

Of course operating costs, including increases for labor and material, must be met out of the imposed rates of fare. The public have no just ground for objecting, nor can I conceive of a public service commission placing an obstacle in the way, but the problem is not fully stated in the public's estimation by calling attention to the heavy increases in operating costs and to the materially lower net return. Between these two to their mind are numerous intervening factors, an inquiry into which we must turn our attention if we would emerge from the chaos of the present situation.

When an epidemic touches a locality its effect upon the individual depends in part upon any organic or fundamental physical weakness which that individual

possesses. It is an axiom, I think, that disease usually makes its most sinister attack upon the weaker organ of the patient. A physician in diagnosis would be recreant if he did not, therefore, take into consideration these fundamental difficulties in each patient. While analogies are not always logical, it is without question that the high costs of labor and material, the lessened purchasing power of the dollar, perhaps the changing riding habits of the people have borne down upon the electric railway interests of the land most heavily in places where there are fundamental weaknesses in corporate history, management or general conditions. Shall we stop short of inquiring into these weaknesses?

If, then, these higher costs are likely to be continued, the companies in order to survive and meet the responsibilities of the new conditions under which they are called upon to operate must not deceive themselves. They must not gloss over any organic difficulties if they exist, but even at the expense of much travail subject themselves to rigid self-examination.

SAVING WATERED STOCK FOR WIDOWS UNTENABLE

It has been remarked before you, I understand, that some companies have capitalized "hopes." It would be inexpedient for me to name or even have in mind particular companies, but making a composite statement of several to which my attention has been directed, let me inquire what you would recommend to public service commissions who were seeking to determine the fair return in the cases of companies which on outlays of from two million to three million dollars without an additional rail, spike, car or dollar of investment, capitalized such properties at seven or eight million dollars. Where increases were not made on the basis of money invested or upon the physical value of the property devoted to public service, but the then or anticipated net incomes were capitalized, these incomes have necessarily been lessened by the increased costs. Naturally such companies do not wish to readjust their capital issues to meet present net incomes on the basis they were established, but they now desire to increase their income to meet their former increases in capital.

The payment by the public of a fair return upon watered stock on the ground that that stock had passed into the hands of widows and orphans, no matter how just or equitable it might appear to the advocate of such a policy, nor how strongly entrenched in law, nor persuasive the argument as an *ad hominem* appeal, would with difficulty secure a consenting riding public to support it and would, of course, require changes in the organic law of every state regulatory body of the land. For valuation for rate making purposes is by law based primarily upon original costs and reproduction costs new, neither of which would respond to such a suggestion. Moreover we would then be confronted by a situation in which the company whose capital issues bore fair relationship to the value of its property devoted to public service would fare much worse than the one burdened with watered stock.

I am deeply concerned then, as a public official charged with grave responsibility, with respect to the matters before you and acting in the interest of the public and these companies, that the carriers shall place their appeal for relief squarely upon the only tenable and legal grounds which would entitle them to consideration at the hands of the public utility commissions of the land

and not predicate their demand upon arguments and theories which under the law, as it exists, would be bound to close the door of helpfulness of every regulatory body of the nation.

REGULATION BY STATE COMMISSIONS NOT A PRIMARY OBSTACLE

If we are agreed upon the legal and equitable standards for fair value and a fair rate of return as the basis upon which the railways are entitled to relief, then I submit that in the larger aspect there are no regulatory difficulties, except perhaps in a negative sense standing in the way of an adequate solution of the railway problems. The equation stands, adequate service on the one side and a paying public on the other. To create the ideal situation the railway companies and their patrons must be brought into harmonious relations in which adequate service is rendered and reasonable and compensatory rates are paid.

At the risk of being trite and also redundant, I will state that it is recognized that the companies must have adequate revenues, sufficient to pay the cost of operation, provide for proper reserves and to yield a fair return upon the value of the property devoted to public service. The public, of course, must, out of rates of fare, provide such revenues, but it does not lie within the power of public utility commissions nor in statutory enactments nor with the deliverances of your distinguished body to provide a riding public *willing* to pay the imposed rates. The patronage to produce the required revenue must be obtained by the energy, efficiency and business acumen of the companies. Against

the fiat of any law, order or recommendation of regulating or recommendatory bodies, municipalities or legislatures, the public have a determinative veto, for they may still withhold their patronage.

In states and in localities where statutes or municipal ordinances have fixed rates in which companies have heretofore assented and which under the law of those states are beyond the regulatory authority of commissions to change, the barriers are legal and not administrative, and the relief must be found by appealing to the authorities which imposed and may remove those barriers. How can your distinguished body generalize over such conditions? They do not obtain in Pennsylvania. They do not exist in some other states. It was held by the Pennsylvania Commission, in an opinion which I had the privilege of preparing, (Wilksburg case), that notwithstanding the constitutional provision authorizing municipalities to grant or withhold consent to the laying of tracks upon the municipal highways, when such grants were made and accepted by the companies with conditions fixing the rates of fare to be charged, the commission had authority to inquire into and determine the reasonableness of filed rates which were in excess of those prescribed by ordinances. That opinion has recently been affirmed by the Superior (Appellate) Court, and the legal barrier against imposing reasonable and if need be higher rates has not existed in Pennsylvania. Since the establishment of the public service commission the companies file their rates which upon thirty days notice automatically, without approval, become effective. If complaints are filed the rates continue in effect until the commission makes a deliverance

What the Federal Commission Should Bring Out

BY WILLIAM D. B. AINEY

The public and those charged with administrative and legal responsibilities will welcome clear and definite statements of the facts which confront them as railway patrons

1. The people should be advised of the commission's conclusions as to the extent to which increased costs have entered in railway expenditures.

2. The people should be advised by the commission as to the basis upon which it would grant or withhold increases to meet the situation.

3. The commission's deliverances should clarify the public's vision with respect to the importance of the railways in carrying on its business, and advise the public in a definite way as to the results which would follow the failure to provide adequate revenues.

4. The public, the railways, state commissions, municipal authorities, legislatures and executives have several duties and responsibilities, the performance of which awaits in some instances definite utterances and programs.

5. The inter-dependence of railways and patrons in which the railways must supply the service and the riders must provide revenues, cannot be over-emphasized.

6. The injustice to the car rider as well as to the company, and the economic fallacy of certain franchise burdens imposed on the carriers should be corrected.

7. Railways, if they are to be continued, must be operated under conditions not heretofore confronting them. The jitney, auto-bus and private automobile have no doubt deflected many fares. Their advent in such large numbers has not only affected revenues, but it has placed a competitive service in action, and these private or public competitors must be met by the railways.

8. If railways are to survive, they must meet that competition by efficiencies and economies in opera-

tion, and there is a wide range for study and recommendation in these respects.

9. Too long rides for fares less than cost are sometimes provided. The short-distance rider, of course, foots the bill.

10. Coal must produce more current, cars more riders, and miles of track more service.

11. Some railways were constructed with more optimism than good judgment. Without patronage to support them, of course, they cannot survive, and we cannot burden our statistics with such cases.

12. Jitney service where it exists must be a regulated service.

13. On the part of companies corporate complexities should be eliminated where possible and if the future holds any promises there must be some fair relationship between capital issues and the property devoted to public service.

after a hearing. No intervening power to suspend exists.

This establishes that the electric railways of Pennsylvania are operating under legal and regulatory conditions quite different from those obtaining in other states. A difference which, with due deference, I submit you are bound to note in your conclusions. Nearly all the electric carriers of the state were operating under municipal ordinances fixing rates of fare, but a very large proportion of them have increased their rates above the municipally imposed ones and their right to do so, to the extent that they were just and reasonable, is supported by commission decisions and judicial affirmance.

Permit me to excerpt from the report in one case wherein there was a rate fixed by ordinance. In the Waverly case the commission made the following pronouncement in upholding a 7-cent fare:

To expect public service of these carriers without permitting them sufficient revenues to produce it is as fallacious an economic suggestion as to demand bricks without straw or to require faithful toil from the muzzled ox.

It is therefore a matter of ordinary business prudence and sagacity that the public generally should come to an appreciative understanding of what that service means to the industrial and commercial life of the State, and to each locality within it and to recognize that the terms upon which it can be continued for their use and enjoyment are that it shall receive at their hands as ratepayers, sufficient to furnish it.

If the public is to be adequately served, railways must be permitted to earn out of imposed rates of fare revenues large enough in amount to pay operating costs, a fair return and provide for the maintenance of the property, provided always that the rates imposed are not unjust or unreasonable.

I am calling these matters to your attention for the purpose of stressing two points, that Pennsylvania, both in its law and under the commission's broad policy, has dealt fairly with the electric railway interests of the state, and to establish before you that regulatory authority has not stood in the way of these interests obtaining adequate returns.

RECEIVERSHIPS RARE IN PENNSYLVANIA

In that connection you will be interested to note that we have upwards of 130 operating companies in the state with about 5,000 miles of track, and as I am informed not more than eight are in the hands of receivers. Of these, seven have 180 miles of track, and one has 605 miles. Two of them with 39 miles of track went into receiverships in early 1914, two with 60 miles of track in 1915, and the remainder in 1918. In every instance where receivers have been appointed, it was due in very large measure to special circumstances. For instance, one of these small companies had a serious wreck with heavy loss of life, the damages for which were enormous and beyond its ability to pay.

Regulatory authority is therefore not a primary obstacle confronting utilities. In fact, in some of the larger states the want of such authority is manifest.

In recent addresses I have adverted to the fact that no two companies have the same corporate and financial history. Their railways have been constructed under widely varying conditions; they serve different types of localities in which the congestion of population, geographic and topographic features and riding habits play important parts. Take our two largest railway companies; that in Philadelphia and that in Pittsburgh. Each has been affected by the increases in labor and material. In the one, the company has met, in fact anticipated the demand for increased wages, has con-

tinued to pay accustomed dividends on its stock and interest on its bonds, and it has not increased its rates of fare which are continued at the basic 5-cent rate.

I quote briefly in passing from one of the newspapers of Philadelphia of Friday, Aug. 8, with respect to that company:

The introduction of improved operating methods, including removal of wasted effort, has thus far in Philadelphia served to keep pace with increased wages and other costs, as against the alternative of raising fares.

Increasing fares in other cities has almost invariably resulted in reducing the number of passengers carried by forcing many who would and should be car riders to walk or use other means of transportation.

The remedy, it is believed, is to be found in doing everything possible to increase revenues by increasing the number of passengers carried and decreasing the costs of operation.

In the other case the company has gone from five cents by gradations to ten cents, is in the hands of receivers, and has earned hardly enough to pay operating expenses.

Here I again stress the point of the error of generalization in seeking our remedies. With these two localities before us, similarly influenced by the wage increases and higher material costs, it would lead to doubtful conclusions that either the 5-cent fare or the 10-cent fare were wrong when it is possible that (with the other factors of differing topography and density of population before us) both may be correct.

INTER-CORPORATE COMPLEXITIES

I invite your attention to another economic difficulty which confronts some but not all the railways—expensive inter-corporate complexities. An operating company of Pennsylvania controls directly or indirectly, by stock ownership or leases, some seventy-eight (formerly 204) underlying companies with a complexity of inter-corporate relationships, including numerous bond issues and rental charges, and all surmounted by a holding company. Such a condition can no more be justified from the standpoint of economy or efficiency than could be the placing of that many wheels in a watch. The expense of maintaining these corporations, together with the duplication of taxes, is a burden which ultimately comes out of the revenues of the operating company, even though commissions may deduct the amount from fair return. And the arrangement serves no useful purpose either to the public or to the railways. Whether that expense is \$500, \$1,000 or \$1,000,000 per year, there is but one answer to its continuance. This is a matter which at least in Pennsylvania must be adjusted by the companies rather than by the commissions, but it is important in connection with your present inquiry.

TOO LONG RIDES HAVE BEEN SUPPLIED

Sometimes companies carry passengers for distances which at imposed rates are less than cost. Why should not there be a readjustment of rates to avoid such inequality? When the short distance rider awakens to the fact that he must be charged a larger rate in order to give some other person a partially free ride, there ought to be no serious local difficulty in accomplishing the change. Whether that readjustment should be made upon a strict zoning basis I am not at all convinced, but prefer to leave the matter under the general statement that rates of fare must be based upon some fair proportion to the service rendered. It is too much to ask that

companies give greater attention to economies in operation. Some are now doubt doing it. The meet to-day's and to-morrow's condition every utility must get more out of each ton of coal consumed.

MERCHANDIZING

Let us assume that each company has reached the goal of economic efficiency, that each company has done its part. The required gross revenue has to be raised by the imposition of rates of fare. Here, then, comes the severe test of operative discretion. The gross amount to be raised is made up of two factors, the anticipated number of passengers and the rate of fare to be applied. It is an axiom of every day business judgment that patrons should be retained and others gained if it is possible to do so. I shall not burden this commission with any extended statement on this phase of the question. This too is a matter involving the exercise of business judgment of each company in the light of local conditions, congested centers and study with respect to potential riders. In two recent addresses I have discussed at some length the influence of the rate of fare upon the riding habit, and have sought to emphasize the fact that street railway companies might profit by the merchants experience and methods. Having car rides to sell, why should not the companies adopt adequate methods for selling? The percentage of increase in rates has not followed by the same ratio increase in revenues. Increased rates have in many instances been followed by a flattened curve in the number of car riders. It has been pointed out that

the unusual winter conditions of 1917-1918, the removals by draft and the later epidemic all affected the data which we might use in determining the extent of the loss of riders. It has also been noted that the jitney and private automobiles have taken away a considerable number of patrons. Nevertheless there remains a very appreciable number who have been influenced by the rates of fare. No business house would be content to lose such a large percentage of its customers without making a stupendous effort to retain them. Many of these would not be casual but permanent patrons. Why not consider in particular localities monthly commutation tickets to meet this situation? This matter must be measured not only in terms of the revenues to the companies, but by potential good will of these riders in their respective communities, a good will that is reflected in local sentiment, political and otherwise. I look upon the loss of car riders as being a serious menace to the well-being of any company, and it is not an answer which should satisfy the companies that the increased fare gives them a revenue sufficient to meet their needs even if it has to be secured from selected patrons at the loss and consequent cost of a considerable number of their former patrons.

Let me frankly say that all these matters do not affect all of these companies, and no doubt many of them are wholly free from any of them, but where they do exist that company cannot afford to ignore them in its own interest as well as that of the public.

[The conclusion of Mr. Ainey's statement appears in the box at the bottom of page 389.]

Status of the Electric Railway*

Its Place Cannot Be Taken by the Jitney But Zone Fares Are Desirable

By DUGALD C. JACKSON

Professor of Electrical Engineering, Massachusetts Institute of Technology.

HOWEVER serious may be the direct financial disturbances arising if the extensive electric tramway systems in the country decline into bankruptcy, those effects are minor compared with the effects on the prosperity of the country that will result from a failure of systematic local transportation in the cities. The continuation of business in American cities, whether industrial, mercantile or other, is dependent on systematic local passenger transportation being available, and the activities and comfort of the great majority of individual citizens are likewise dependent on systematic local passenger facilities. Such facilities must be preserved and enlarged in a character which will maintain them, adapted to the characteristics of the cities.

Most street railways have been organized and work under provisions of some agreement between representatives of a city and representatives of the stockholders. The principles embodied in these contracts are usually similar to those in short-time business contracts, but the conditions are different, and both city representatives and company representatives have

been at fault in the past in not recognizing this fact. A company directorate which accepts an agreement to make a fixed fare within city limits which are not defined and may be largely expanded, places the company in a situation where the ultimate bankruptcy of the enterprise is likely to result in case the area of the city grows in large measure, and a city council which insists on such a provision promotes the ultimate strangulation of service as the city grows. But the difficulty has been to find a better way. With the advent of state public utility commissions, the execution of some of the provisions may have yielded here and there to judgment. But even then there has often been a failure to correlate the facts so as to bring out the essential meaning of the tendencies in the industry.

The introduction of supervision by public utility commissions was essentially a move which, uniformly and fairly applied, would result in providing good service at cost, when a fair return on the investment is included as part of the cost in addition to the ordinary daily out-of-pocket expenses. At the same time it affords opportunity for a street railway operated with particularly able, foresighted management and giving

*Abstract of statement made before Federal Electric Railways Commission, Washington, D. C., Aug. 15, 1919.

notably good service to profit through receiving a larger return on its investment than the average for the industry, since a regulating commission may use its judgment on the question of restricting the return. The present slogan for service at cost adds to this the additional feature of guarantee by the taxpayers of a return on the investment, associated with operation under public authority. This addition has been adopted in certain instances, but it introduces an inflexibility in the rate of return which may in the future prove unfair to one side or the other. Another solution is to add to the powers of the public utility commissions, giving them sufficiently extensive and experienced engineering and accounting staffs so that they can fully audit the companies' affairs and correctly advise the public in respect to the problems of extension and of operation, without actually undertaking the details of the management. This is a solution to which I believe it is important for your commission to give careful thought.

Our present street railway service is an outgrowth of horse car service which, naturally, dealt alone with the short haul, and the electric railway fares were chosen and fixed by habit on the basis of the horse car service. In that service, the investment per passenger-mile haul was less than in the modern electric service. In Massachusetts the general ratio of total investment to revenue passengers carried per year has gradually but unmistakably increased during the entire period since electrification of the street railways, and the density of traffic measured in revenue passengers carried per car-mile was less in 1915 than at the opening of the period. The service itself has been entirely changed by the introduction of the electric car, which made practicable longer hauls, so that a single fare was paid for hauls which previously cost the passenger two or three fares spent on connecting horse railways. The speed of transportation has also been raised and this has again increased the investment per passenger-mile-haul as well as certain factors of the operating expenses.

Since it is necessary to maintain both the short-haul and the long-haul traffic, it may be inquired whether the electric car is adapted to do this double service. The following considerations bear strongly upon this question:

RAIL LINES BETTER THAN BUSES

It must be remembered that approximately one-half of street railway investment is fixed in the permanent way and adjacent pavement. This proportion has slowly increased during the past thirty years. The jitney buses which run at will on the street surfaces are free from this investment. True their owners contribute by taxes and license fees toward the cost of pavements, but so do the street railways in addition to financing the investment of their own permanent way which is used jointly by other street traffic. Moreover, the street railways make heavy investments in power plants of the most economical character, which is a conservation policy as well as a policy for economy, and the jitney does not. These considerations make the jitney business more like other commercial enterprises in respect of the rapidity of turn over of capital and also enable it to compete with street car service operated with flat fares. It is important to examine carefully whether these considerations make the jitney bus lines with systematic routes and reliable schedules

desirable substitutes or successors to the street railways, or at least to a part of their business, as has been asserted.

What would be the effect on the street traffic congestion in cities such as Chicago, Baltimore, Philadelphia, Boston, and a large number of others, if the surface street railway service was replaced by bus service of equal reliability? Many of the American cities each have more than 1000 cars operating on street railways during their rush hours. To replace such a service with buses would require several times as many vehicles, thereby adding to the welter of street traffic in the heart of each city. These vehicles would cause more than a proportionate addition to the traffic confusion because they would travel at will over the street, instead of being confined to certain definite channels like the street cars. Moreover, additional streets would have to be paved with smooth pavement at greater expense to support this bus traffic. This means a large increase of investment in paving as well as annual cost for paving maintenance. Given equally systematic and reliable service by street cars and by jitney buses, community economy stands with the street car for service in main channels. The jitney may be made serviceable for certain special conditions. It should also be observed that the use of subways to divert some of the surface traffic from the surface in certain parts of the city, as is done in Boston and Philadelphia, and as is talked of in Chicago, Cleveland and elsewhere, would be less readily accomplished and less safe for railless traffic than for rail transportation. All of these considerations point to the fact that it is necessary under our present conditions of city life to maintain the rail traffic at a high degree of completeness.

UNIT FARES DISCOURAGE SHORT HAULS

In my opinion, no amount of repressive regulation will be adequate to do away with the competition which jitney buses produce. If the street railway service cannot be made complete and adequate to the needs, some other service, such as jitney service, will come in as a competitor. In fact, it ought to come in and be encouraged unless means can be provided to make the street railway service adequate to the needs, and the necessities of the present are to find the best ways of making the street railway service adequate, in view of the fact that it is (with all things considered) the more economical service for the community.

After having studied carefully the conditions of local transportation in American cities under the normal conditions of cost prior to the war, I became convinced that a considerable part of the difficulties of the present street railway transportation systems is due to their effort to satisfy the needs of long haul at the expense of the needs of the short haul. These conclusions are set forth in a statistical report on the subject, published in 1917 in a book entitled "Street Railway Fares, Their Relation to Length of Haul and Cost of Service" by Jackson and McGrath. In the first chapter of this book are set forth a summary and general conclusions. I wish to call your attention to seven paragraphs of specific facts regarding street railways which this investigation, in my opinion establishes.

1. Density of traffic is the most fundamental factor in establishing the cost of service per passenger. The higher the density of traffic, the lower the investment charges and operating expenses per passenger. In this connection density of traffic is a term used to mean passengers carried per car-mile run, and passengers carried per mile of track per annum.

2. Long hauls tend to decrease density of traffic, thus decreasing the earnings per car-mile and increasing the cost per passenger.

3. The average length of passenger haul increases with the length of line.

4. The density of traffic becomes large in medium-sized cities, but as the cities spread out and become very large, the density of traffic tends to decrease again because of long hauls into thinly settled suburbs.

5. Increased unit fares have a tendency to decrease traffic, while decreased unit fares tend to increase traffic.

6. For a number of individual roads studied, as well as for the aggregate of all street railways in Massachusetts combined statistically as a single system, it has been found that the average actual investment per revenue passenger carried per annum has been increasing, and the average rate of return has been decreasing. This has been associated in the last few years (considering conditions prior to the European war only) with an upward tendency of operating cost per revenue passenger.

7. Fares in British cities are somewhat lower than on American street railways, and are almost invariably based upon the distance the passenger rides. In general they approximate (before the war) about 1 ct. (U. S. money) per mile and the average ride is usually only about 2 miles. Lower rates abroad may be ascribed partially to a greater density of traffic which results from a much greater density of population per mile of track, while wage scales are much lower in British cities than in this country and free transfers between lines are seldom issued.

[In addition to these seven specific facts, Professor Jackson quoted ten conclusions from his book, setting forth, among other things, that, in his belief, the street railways in the United States, both urban and suburban, would sooner or later be forced to adopt a system of rates based more nearly on the length of the haul. A mileage system of rates would probably be less desirable, in his opinion, than to retain the nickel fare by putting a reasonable limit on the length of the ride permitted for that rate. In general, he recommended, something shorter and more uniform than the present irregular and unsystematic 5-cent zones, possibly with lower unit rates than 5 cents.]

ZONE FARES SHOULD BE ESTABLISHED

The foregoing conclusions all point to the necessity of some zone plan of fares for our large cities. Where it is pointed out in the conclusions that a mileage system of rates is probably not desirable in American cities, it is the intention to urge the fact that transportation, like other branches of business, has a certain proportion of overhead cost which is reasonably independent of the bulk of the business, and that, therefore, the short haul passengers may be expected to pay a larger fare per passenger-mile apportionment than the long haul passengers, and that the zone system should be laid out recognizing that fact. Zones which might have been based on a 3-cent fare under pre-war cost, would, to-day, call for a 5-cent or larger fare.

Most of the street railways of the United States have wished to avert the introduction of zone fares, partially on account of the difficulty of adequately auditing the fares collected. In the European cities where zone fares have been used for several decades, the plan has been usually founded upon a straight mileage charge without consideration of the stand-by charges, and measures for adequate auditing have not been introduced. This is undesirable in American practice since we have a much heavier passenger flow which calls for larger loads on our cars and makes impracticable the collection of fares according to European methods. Moreover, the American public is more inclined to criticize loose methods of fare collection than the foreign public, and the American public has

become more accustomed to methods of checking money collections in all lines of business, as is illustrated by the very general use of cash registers in the mercantile lines, than has the European public. Some of our American street railway employees suggest that the introduction of accurate methods of accounting for fares is a reflection upon the honesty of the platform men on the cars, but, in my opinion, this is an inaccurate inference in respect to the attitude of the true man. No true man can fairly object to the use of a cash register in a corner grocery in which he is employed as a clerk nor in a department store where he is employed, as it puts him upon his metal to do his work accurately and is to his advantage rather than his disadvantage if he is honest. Similarly accurate methods can be introduced in association with some fare collections on street railway cars. The passengers can rely upon paying only for that which they get in the way of transportation and can likewise rely upon the company receiving a full accounting from the collectors.

With the normal conditions of commodity costs gradually returning, as we may expect them, to return ultimately, the unit fare may go below the nickel, so that a proportion of the passengers carried should pay less than the traditionally established nickel fare, while those passengers who travel larger distances will, and ought, to pay more than the nickel fare.

ZONE FARES REDUCE CONGESTION

Voice has been given to much well meant but incorrect criticism of zone fares for American cities. This has generally been based upon an allegation that zone fares would increase the concentration of population in the cities. My study has satisfied me that these premises are erroneous. The family that has gone to the suburbs for the purpose of obtaining better living conditions, as a rule, is able to pay a slight increase of fare without over-throwing its margin of advantages. If such fares are not increased above 5 cents provided the distance to the suburb is greater than a passenger can be carried for 5 cents, then the loss from carrying such passengers for 5 cents must be borne by others. If it is assumed by the state or city, the suburban dwellers will ultimately pay more than the extra fare, because we cannot escape the proposition that the general public pays for all such costs which are assumed by government, and that the cheapest way of meeting the costs is by direct payment, rather than the indirect payment through taxation.

Moreover, there are a large proportion of unskilled working people living in cities on whom the payment of even 5-cent fares falls heavily, and these, with their families, are now constrained to live in definite portions of our cities often denominated "slums," which are near the locations of centers of employment, because the individuals are unable to pay transportation charges and must live near their work. The zone plan, properly introduced at the present time, may not aid this portion of the population now, but with the gradual decrease of the cost of commodities and the consequent reduction of the price of transportation there will be an ultimate reduction of the unit price per zone, which will enable such passengers to get a certain amount of transportation at less than 5 cents per passenger. The ultimate result of the zone system introduced properly into American cities will improve the present situation by tending to spread the area within which it is practicable for unskilled working people to live.

Statistics Show Railway's Plight*

Records of the Industry and From an Individual Property Show Increasing Costs and Lessened Earning Power

BY J. A. EMERY

Ford, Bacon & Davis, New York, N. Y.

ANALYSIS of the combined income accounts of American electric railways since 1902, shows clearly:

1. That the present acute situation is not due to the size of payments for interest and dividends.
2. That per passenger the payments for interest and dividends have practically remained stationary for seventeen years.
3. That payments made for interest and dividends represent only a moderate return on a moderate amount of capital.
4. That the increase in cost of labor and material which had been going on before the war was nearly offset by improvements in efficiency, but that the increase due to the war came too quickly to be so absorbed.
5. That electric railway labor, as a whole, has received increased wages commensurate with the increase in cost of living.
6. That the cost of materials used in electric railway operation has increased in proportion to the decline in general purchasing power of the dollar, and there is no prospect of material relief.
7. That the estimated combined net income in 1918 was only 11 per cent in excess of obligated deductions for interest and rentals. This represents average conditions so that nearly half the industry was unable to meet its obligations in 1918. In 1919, when the full year's effect of wage increases made during 1918 will be felt, a far greater portion of the industry will be involved.

Taking up these assertions in order:

NOT DUE TO INTEREST AND DIVIDENDS

1. That the present acute situation is not due to the size of payments for interest and dividends.

The payments made for interest and dividends, less that portion supported by non-operating revenue, have been as follows, per 5 cents of operating revenue:

Year	Amount
1902	1.56 cents
1907	1.59 cents
1912	1.61 cents
1917	1.50 cents
1918	Not available

For each 5 cents collected, only 1.5 cents goes for return on capital. This is so small that a large percentage reduction therein would not greatly affect the fare. For example, a reduction of 33 per cent in the payments for use of capital would only reduce the fare by 10 per cent. The salvation of the electric railway industry, therefore, cannot be effected by trimming the return on capital.

THESE PAYMENTS HAVE BEEN STATIONARY

2. That per passenger the payments for interest and dividends have practically remained stationary for seventeen years.

It is shown by the foregoing statement that payments for interest and dividends per 5 cents of railway operating revenue, increased by only 3 per cent from 1902 to 1912, but in 1917 were 4 per cent lower than in 1902. Thus, in the face of increasing costs in every other particular, the capital charges per 5 cents of revenue

have decreased slightly. During the period in question the cost of all material and labor entering into electric railway construction increased at the rate of approximately 1.3 per cent per year up to the beginning of the war. Increased efficiency in design, however, has counteracted this increase in cost of construction.

It is clear that present high cost of service is in no wise due to increases in payments to capital.

THEY HAVE BEEN MODERATE

3. That payments made for interest and dividends represent only a moderate return on a moderate amount of capital.

Payments for interest, rentals and dividends, less that proportion supported by non-operating revenue, have been in the following amounts per mile of track:

Year	Amount
1902	\$3,430
1907	3,880
1912	4,460
1917	4,760

The payment for interest and dividends in 1917 per mile of track, represents a return at 6 per cent per annum on \$79,300. This would be a most conservative valuation per mile of track at pre-war prices, especially considering that all subway and elevated lines are included. Valuations accepted by public authorities for over 4000 miles of track of various representative systems excepting subway and elevated lines, give an average of \$87,000 per mile.

Thus it is seen that whatever the nominal capitalization, undue payments have not been made for return upon capital.

PRE-WAR COST INCREASES OFF-SET

4. That pre-war increase in cost of labor and material has been offset by improvements in efficiency, but that the increase due to the war came too quickly to be so absorbed.

The cost of operation per 5 cents of operating revenue which, up to 1918, is substantially the passenger revenue per revenue passenger, has been as follows:

Year	Amount	Increase over 1902
1902	2.87 cents	...
1907	3.00 cents	0.13 cents
1912	2.94 cents	0.07 cents
1917	3.19 cents	0.32 cents
1918	3.61 cents	0.74 cents

From 1902 to the beginning of the World war, electric railway wages increased at the rate of about 2 per cent per year, and material and supplies used in operation at the rate of about 1.0 per cent per year, the average being about 1.5 per cent per year. Electric railway managers were able to counteract such increase in prices by continuous improvements in efficiency so that in 1912 the cost per 5 cents of revenue was only 2 per cent greater than in 1902, indicating an increase in efficiency of about 13 per cent in the ten-year period.

*Abstract of statement presented through Committee of One-Hundred to Federal Railways Commission.

Since 1915 operating expenses per 5 cents of revenue have increased by about 21 per cent or 7 per cent per year, a rate which is altogether beyond the efforts of managers and engineers to cope with.

WAGES INCREASED WITH COST OF LIVING

5. That electric railway labor, as a whole, has received increased wages commensurate with the increase in cost of living.

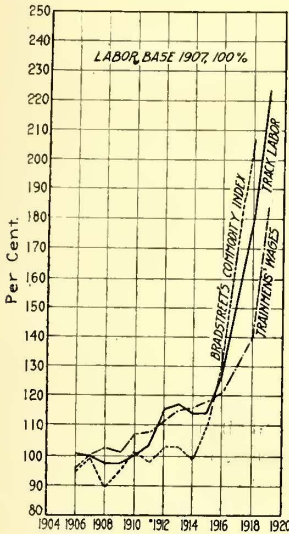


Fig. 1

FIG. 1 SHOWS STATISTICS REGARDING LABOR AND LIVING CONDITIONS; FIG. 5 REGARDING COAL

The rise in wages since 1907, of electric railway employees, is illustrated by chart Fig. 1 showing representative figures on trainmen's wages and track labor in comparison with Bradstreet's Commodity Index. It will be noted that wages kept in advance of the Commodity Index up to the beginning of the war. Since 1916, wages have lagged behind the Index, but at the present

ject by the United States Department of Labor, the cost of living increased by 61.3 per cent between 1914 and 1919. The corresponding increase in trainmen's wages as shown on the chart, is 59 per cent and in track labor 95 per cent.

The foregoing figures and illustrations show that electric railway wages have substantially kept abreast of the increase in prices. That wages in the earlier years of the industry were not comparatively low is proved by the fact that, at that time, there was little difficulty in obtaining labor in competition with other lines of industry except in years of unusual business activity.

COST OF MATERIALS UP

6. That the cost of materials used in electric railway operation has increased in proportion to the decline in general purchasing power of the dollar, and there is no prospect of material relief.

Electric railways expend approximately 1 cent out of each 5 cents of revenue for materials and supplies, including coal and purchased power. The larger items of materials and supplies are coal and those which enter into maintenance of track and roadway, principally rails, ties and trolley wire.

The base price, per gross ton of girder rails, at the mill has been as follows:

BASE PRICE OF GIRDER RAIL PER GROSS TON AT MILL

		Per Cent of 1902-1915 Price
1902 to 1915	\$36.00	100 per cent
1916	42.00	117 per cent
1917	60.00	167 per cent
1918	90.00	250 per cent
1919 (July)	60.00	167 per cent

Variations in price of girder rail as actually purchased by a large operating company, are illustrated on chart Fig. 2. On this chart the prices are given for each year based upon the average price paid in 1895 as 100 per cent. The slight irregularities in price between

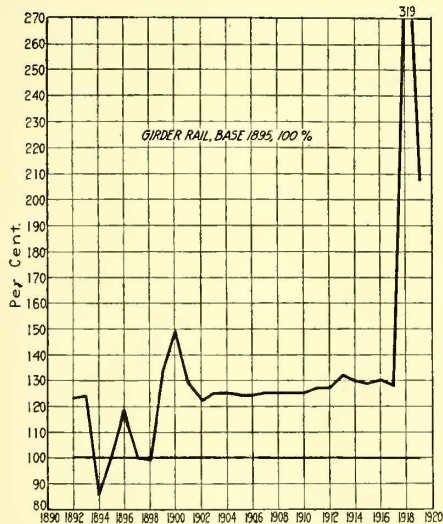


Fig. 2

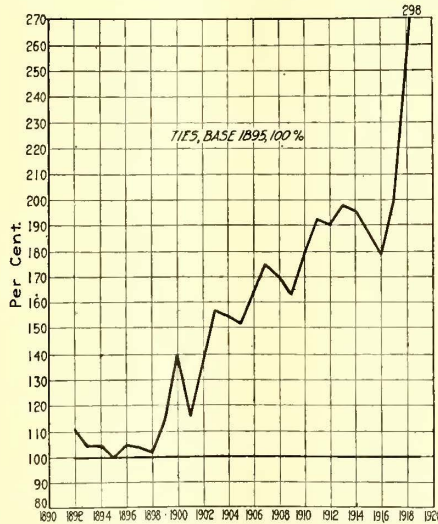


Fig. 3

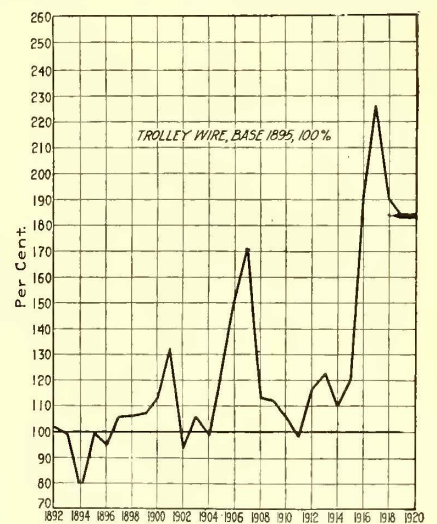


Fig. 4

THESE CHARTS, AND FIG. 5, WERE COMPILED FROM THE RECORDS OF ONE COMPANY, A LARGE OPERATING PROPERTY. THESE SHOW STATISTICS ON GIRDER RAIL, TIES AND TROLLEY WIRE

time, with the effect of all the increases made in the past year now in full force, it is probable that the increase in wages fully equals that of the Index. According to reports of the National Industrial Conference, which agree substantially with investigations of the same sub-

ject, the increase in wages between 1902 and 1916 are due to variations in specifications and points of delivery. This company purchased its girder rail requirements for 1916 and 1917 at pre-war prices, so that the rise due to the war does not show until 1918.

Fig. 3 illustrates the average price paid for ties by the same company, based upon the average price paid in 1895 as 100 per cent. This chart shows that just previous to the war, ties in this locality had practically doubled since 1895. In 1918 the average price had risen to 255 per cent of the 1895 price, or about 30 per cent above the pre-war price, while in 1919 the price has risen to 298 per cent of the price of 1895, or 50 per cent above that of 1914. Chart Fig. 4 shows the average price paid by the same company for trolley wire, based upon 1895 as 100 per cent. In the period before the war, copper made wide variations, practically all being above the 1895 price, but in 1914 it was only 10 per cent above the price of 1895. In 1917 the price reached a maximum which was 225 per cent of the price in 1895, or about double the pre-war price. In 1918 the average price was lower than that of 1917, and at present the price of trolley wire is approximately 185 per cent of 1895 prices, or about 65 per cent above pre-war prices.

The cost of power constitutes approximately 18 per cent of the cost of street railway operation. Of central station power capacity in the United States, approximately one-third is water power and two-thirds steam power. It is probable that electric railway power is supplied in about this proportion. The cost of production of hydro-electric power has increased comparatively little due to the war, but the cost of steam power has increased enormously on account of the rise in price of coal during the war period, and in deterioration in quality of coal.

COAL PRICES UP, QUALITY DOWN

Chart Fig. 5 illustrates the rise in price of coal and decrease in quality of coal used by a large central station in a coal district where the freight charges are small. It will be noted that the average price paid by this company increased from 90 cents per ton in 1909, to \$1.12 in 1913-1914-1915, after which a rapid rise began to \$1.60 in 1916; \$2.96 in 1917, and \$3.32 in 1918, being then 300 per cent of the pre-war price. For the first seven months of 1919 the average price has declined to \$3.12 per ton.

The per cent of ash increased from 11.2 per cent in 1914, to 17.0 per cent in 1918, but has now dropped to the pre-war ratio. The B.t.u. per pound decreased from 13,300 in 1914, to 12,500 in 1918, a decrease of 6 per cent. The heating value has now risen to pre-war levels. With scarcity of coal and rising prices, the quality is certain to decline again, and central stations are probably facing such conditions next winter in view of the foreign demand for coal.

The increase in price of coal during the war to stations located at a distance from the mines, is shown by the following comparative analysis of average cost of coal to a large eastern electric railway system at pre-war prices, and at prices governing in the fall of 1918:

COMPARATIVE COST OF COAL PER TON AT PRE-WAR AND 1918 PRICES FOR A LARGE EASTERN ELECTRIC RAILWAY SYSTEM

	Pre-War	1918	Increase Per Cent of Pre-War Total
Cost at mines.....	\$1.50	\$2.95	37 per cent
Freight.....	2.20	5.00	71 per cent
Tax on freight.....	..	0.13	3 per cent
Demurrage.....	0.22	0.90	17 per cent
Clean coal premium.....	..	0.05	1 per cent
Total.....	\$3.92	\$9.03	130 per cent

The cost of the coal purchased by this company prac-

tically doubled at the mine. The freight rate more than doubled, and to this was added the tax on freight amounting to 13 cents per ton.

Demurrage regulations, together with government commandeering, increased the average demurrage payments from 22 cents per ton to 90 cents per ton. The total cost of coal in this case was 130 per cent greater in the fall of 1918 than under pre-war conditions. The quality of the coal used by this company deteriorated by 20 per cent as indicated by the increased cost of coal per kilowatt-hour in excess of increase in price per ton.

While the prices of materials used in electric railway operation have decreased to some extent below the prices caused by the acute conditions of last year, yet, on the average, they are far above pre-war prices, and there is practically no expectation among supply men and students of finance that the purchasing power of the dollar will increase in the immediate future.

IMMEDIATE RELIEF NECESSARY

7. That the estimated small excess of net income over income obligations in 1918, indicates that nearly one-half the industry is in immediate need of relief.

The estimate submitted to this Commission of the income account for 1918 of electric railways whose records are included in the Census Bureau reports shows, after the payment of bond interest and other deductions from income, an amount of \$20,183,413 applicable to dividends, surplus and other corporate purposes. This would indicate that, by omitting dividends in part, electric railways in general could tide over the present emergency and survive on present rates of fare if prices tend downward substantially in the early future. This might be true if all electric railways were combined in one company, or if the stronger companies could help the weaker ones. This is not the case, however, and it must be borne in mind that the net income as estimated represents average conditions. As it shows gross income of only 11 per cent in excess of all the obligations for interest and rentals, it is clear that practically all companies whose financial condition is below the average, or about one-half of the total number of companies, are in need of immediate relief.

As pointed out before, there is practically no prospect of improvement in operating conditions through decrease in prices of labor and materials.

REASONS FOR UNIFORMITY OF COSTS

The extraordinary uniformity in cost of carrying electric railway passengers in the past in large cities and small, on urban and suburban lines, and during a long period of years in which wages and prices have greatly increased, has been due to a balancing of four prime factors entering into the cost of service, namely, length of haul balancing density of traffic, and increasing efficiency balancing rising wages and prices. Thus where long average hauls have been given for a single fare, the cost has been balanced by high density of traffic. The continual increase in prices of labor and materials has been balanced by continually increasing efficiency in management and design of construction and equipment. The latter balance has been irremediably destroyed by the war and the effect has been particularly severe on those companies which combine comparatively long hauls with low density of traffic. The only salvation of this situation is a reasonable, scientific adjustment of fare to cost of service in each locality.

West Ham's Telephone Control System

First to Install System Permitting Immediate Touch with One or all Traffic Regulators—Reduction of Accident Costs a Valuable By-Product

IN THE United States, the use of the telephone for the control of traffic conditions along the line has depended in large measure on the initiative of the outside men except where they have been instructed definitely to call up at regular intervals. In the several electric railway installations, for example, the conductors call up on reaching the terminals or special traffic points in order to give their time and ask for further orders.



TRAFFIC REGULATOR TAKING INSTRUCTIONS FROM TRAFFIC CONTROLLER
(Note alarm bell overhead)

The standard post-office or long-distance exchange, which is operated by an assistant during regular office hours (9 a.m. to 5 p.m.), and from the car depot between 11.30 p.m. and 5 a.m. During the other hours of the day, calls are handled by the man at the control telephone.

An inter-departmental telephone with automatic setting and anti-listening-in features.

The West Ham (England) Corporation Tramways has gone a step further. To its original private telephone exchange, it added in 1916 a control telephone set which permits the traffic controller at the board to call up one or all of the traffic regulators stationed at all important traffic intersections and to talk to them in single or multiple. In this way, the desired benefit of telephone control is obtained without any but emergency contacts with the car crews themselves. On a system with two-and-one-half minute and three-minute headways, and supplementary overlapping routes almost everywhere, it would be utterly useless to have platform men leave the cars en route. Through the system of immediate communication with the traffic regulators, however, any changes necessary in the service can be made almost immediately, as the regulators exercise direct, personal supervision over the cars which pass through their control stations.

FOUR KINDS OF TELEPHONES AVAILABLE

The control of traffic is centered at a telephone room in the headquarters of the tramways, where four kinds of telephones are available, as follows:

A sixty-line board, with northern and southern trunk, connects with substations, feeder pillars, cross-overs spaced every 1/2 mile, section boxes spaced every 1/4 mile, terminals, etc. This is the original system for the use of crews and others along the line, and authorized users are provided with jacks to enable them to establish communication. A third trunk on this exchange establishes direct service with the power station for quick action when breakers go out, when portions of the line are to be killed, etc.

Finally, there comes the most modern feature of all—the control telephone. This places the traffic controller in touch with any one of his traffic regulators or with any combination or all simultaneously. The telephone instruments at the locations of these regulators are fitted with a bell which not only can be easily heard at a distance of several hundred feet, but which also gives a ring-back so that the controller always knows that the telephone is operating. At the controller's end there are two horns (not unlike phonograph horns), one of which is the receiver and the other the transmitter. The receiving horn also replaces the bell or buzzer signal. As shown on the accompanying general telephone map, the present equipment has ten control points, but is adaptable for extensions. The control

WEST HAM CORPORATION TRAMWAYS.

DAILY TRAFFIC REPORT.

Day		Date	19	Weather	Receipts £	Increase	Decrease
Time							
From	To	Cause of Delay	Locality of Delay	Services affected	Cars proceeding to	How dealt with	By whom
							If Through Routes what delay in West Ham

installation is confined to the area of West Ham.

Two men—one on early duty and one on late duty—handle all traffic control. Their work is so varied that the best way of describing it is to present an abstract from the delay reports and the log book. In the latter are recorded all calls with date, time, circuit, name of sender, and message and initials of the traffic controller who received the message. Reports, for example, are sent in as follows:

From traffic regulators:

Conductor on car 85 reports stiff trolley base. Please advise car sheds.

Car No. 43 must go back to the depot. Please arrange for another to take its place.

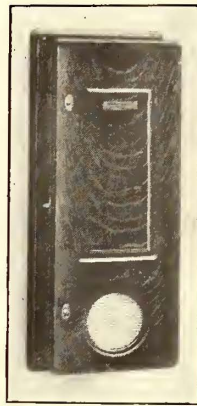
A baker's cart broke down in front of "The Green Man." I have obtained sample of the defective spokes that caused the breakdown.

A boy was knocked down by Car 101, Motorman Jones. We have obtained six witnesses, as follows,....., name of police officer, as follows.....

Or the crew of the line emergency wagon reports: "We have repaired the break at 'The Baker's Arms.' What next?"

Or an excited passenger calls up from an outside telephone to ask: "Has an umbrella marked W. L. G. been found on the car that left Whipps Cross at 3.15 p. m.?"

The foregoing will suffice to show the varied character of activities that pass through the hands or, more strictly, the ears of the traffic controllers. From the



SELECTOR CASE CONTAINING BELL AND BATTERY INSTALLED AT TRAFFIC REGULATOR'S STATION

opening of the day's work, when every traffic regulator calls up to get his time, the traffic controllers are on the job to see that the schedules are kept as close to perfection as is possible. No matter what telephone is used to send the message, these officials are in a position to transmit orders, suggestions and inquiries in a twinkling. In a district where foreign vehicular traffic is extremely heavy and congestion and breakdowns frequent, this means of inter-communication is invaluable. In addition to receiving every morning a complete report of all accidents and other delays of the preceding day, the general manager can exercise further supervision of the traffic control system by listening-in at any time.

MAKING THE GUILTY PARTY PAY FOR ACCIDENTS

One of the valuable by-products of the telephone control system is that it fosters immediate and more detailed reports of accidents without, of course, dispensing with the written reports which must be turned in by the employees concerned. It is often possible to give helpful advice at such times to the men on the ground, particularly with regard to securing the names of witnesses, specimens of wreckage, etc. If the vehicle owner is at fault, the West Ham Corporation Tramways does not wait for him to present a bill but immediately puts in a claim for damages to the car: If palpable negligence is disclosed a prosecution may follow. British tramways do not take punishment lying down.

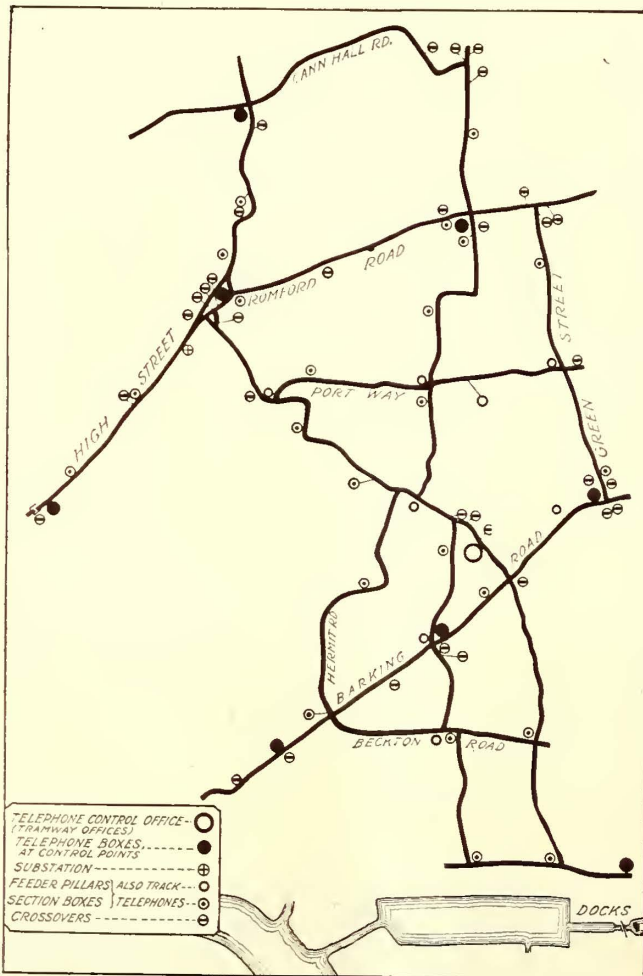
As the joint result of careful operation, telephone control and counterclaims for damage due to foreign vehicles, the West Ham Corporation Tramway's third-party claim payments (damage and injury payments) for the fiscal year ended March 31, 1917, amounted to 2.2 per cent of traffic revenue or 0.242d. per car-mile and in the following year to about 2 per cent or only 0.197d. per car-mile. These figures are all the more impressive because they were obtained during a period of darkened streets, inexperienced platform employees and heavier traffic.

FEW DIFFICULTIES WITH TELEPHONE EQUIPMENT

The operating staff of the West Ham Corporation Tramways has long been accustomed to the extensive, all-around use of the telephone. From a maintenance standpoint, the telephones are declared to be as satisfactory as the installation and weather conditions permit. Shorts occur sometimes because only a portion of the telephone wires are in underground conduit. Troubles with individual boxes are nearly always due to their exposed location, war shortage having led to the employment of sets made for indoor use. Protected instruments, like that at the power station, are practically trouble-free.

On the whole, the cost of installation and not the cost of upkeep is the chief matter for concern. It cannot positively be proved by figures that an installation of this kind pays for itself many times over in the prevention of severe blockades and in better service to, and therefore more revenue from, the public or in the reduction of accident cost, but the probabilities are all in favor of the telephone.

The Tramways and Light Railways Association resumed the holding of an annual dinner on July 25, with appropriate other entertainment, in London. There will be no annual congress this year in the provinces, owing to the difficulty of securing transportation and hotel accommodations.



SCHEMATIC DIAGRAM OF WEST HAM TELEPHONE CONTROL SYSTEM



SCHOOL SCOUT PATROLS ORGANIZED BY P. R. T. IN ACCIDENT REDUCTION CAMPAIGN

A Many-Sided Safety Campaign in Philadelphia

"Miss Safety-First," School Patrols and Bulkhead Signs in Cars Were Among the Features Characterizing the Present Crusade

UTILIZING the interior bulkhead spaces over the doors to present forcibly to the public facts of interest to the car riders has become a settled policy with the Philadelphia Rapid Transit Company. Under the personal direction of President T. E. Mitten these spaces have been effectively used for informing the public as to car routes, for waging an anti-spitting campaign during the last influenza epidemic and for refuting misstatements concerning the skip-stop system. References to these crusades have been made in the columns of this paper. More recently the bulkhead spaces have been devoted to a safety campaign for the prevention of accidents to children.

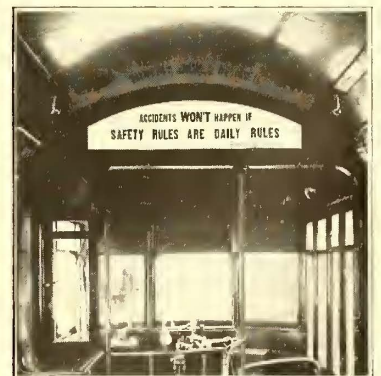
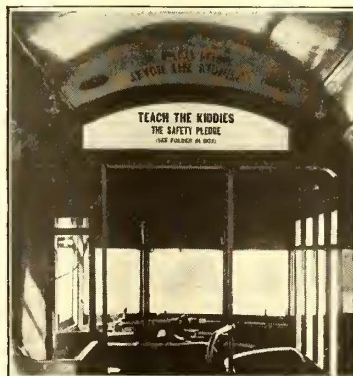
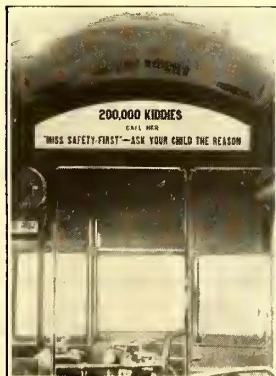
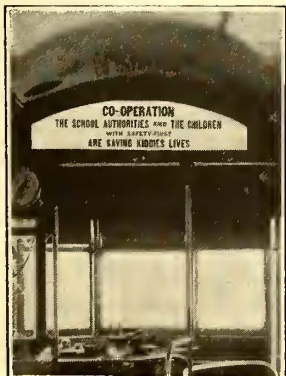
Ever since the Stotesbury-Mitten management took charge of the company in 1911 it has endeavored to lessen accidents among children in the streets, and the results of the eight-year crusade are highly encouraging. Some initial safeguards were the adoption of the near-

side car, the equipment of all passenger cars with an approved safety fender, and the enlistment of the co-operation of school authorities in urging safety among pupils and of the police in preventing children from playing on car tracks and hitching onto cars.

So helpful were the results of this work during the 1911-1914 period that in 1914 a safety bureau was created under the auspices of the company, with "Miss Safety First," a young woman possessed of deep affection for children and ability to inspire their confidence, at its head.

The records show the following work accomplished by this bureau: More than 100,000 children have been addressed annually on safety; during the last year 627,000 pieces of safety literature have been distributed; 8000 children have taken the "safety pledge," and 100 safety officers or school "patrols" have volunteered from among the children themselves for patrol duty, this responsibility consisting of cautioning other pupils against dangers in streets and safeguarding smaller pupils to whom danger has no meaning.

The boys and girls constituting the "patrol" wear arm bands in the school colors bearing the words "Safety Patrol." They carry whistles to be used in signaling their orders to the children. They are trained



BULKHEAD POSTERS USED IN P. R. T. SAFETY CRUSADE

and alert to shepherd their charges across dangerous streets and have been one of the most effective factors in the company's efforts to prevent accidents to children.

Since 1914 the company's records show a decrease of thirty-two deaths from accidents among children as compared with the four years previous.



MEMBER OF SCHOOL PATROL GUIDING "KIDDIES" ACROSS CAR TRACKS IN PHILADELPHIA

The safety publicity campaign conducted in the bulkhead spaces consisted of a series of four signs, which are shown on page 399. The campaign featured "Miss Safety First" and aroused great interest in all of the schools and in the homes of the school children.

The first bulkhead sign appeared in the cars from Feb. 19 to Feb. 28, 1919, the second from March 1 to March 20, the third from March 21 to April 6 and the fourth from April 7 to April 19.

When the third sign was posted there were also dis-

tributed, through the medium of a small box or holder in each car, 2,000,000 copies of a four-page folder entitled "Making the Streets of Philadelphia Safe for the Kiddies." This was described as "a little heart-interest narrative in words and pictures telling of a distinctly worth-while effort by authorities, children, and 'Miss Safety First' of the P. R. T." The folder was illustrated with photographs of the school "patrol" at work and gave a summary of the results accomplished.

The safety first pledge which the school children take upon themselves under the tutelage of "Miss Safety First" is as follows: "I hereby pledge myself to aid my country and my city by preventing accidents."


The pledge of the Philadelphia Rapid Transit Company is that it will continue to co-operate unqualifiedly with authorities, children and "Miss Safety First" in this great humanitarian movement.

Educational Publicity in Twin Cities

On Twin City System Campaign Was Conducted to Demonstrate Seriousness of Existing Condition and to Help Public Choose Future Wisely

IN CONJUNCTION with the present franchise negotiations between the Twin City Rapid Transit Company, and the cities of Minneapolis and Saint Paul, the railway company in the latter part of February began the publication of an extensive series of educational advertisements. The first insertion took the form of an announcement that service was being given at less than cost, that such operation would ultimately impose direct penalties on the taxpayer, house owner, business man and workingman, and that facts concerning operating costs would be published regularly in the daily press, in order that the people of the Twin Cities might understand the conditions.

The second advertisement announced that it would



What Is a Cost-of-Service Franchise?

The Cost-of-Service Franchise for your street railways now being considered by the Twin Cities would provide:

1. That City experts determine just what service should be given.
2. That City experts determine what new lines shall be built and what new paving shall be laid.
3. That City experts authorize increased fares when the costs are high and decreased fares when the costs are low.
4. To stimulate maximum economy and efficiency in management, a part of any surplus earnings over the cost of service should go to the Company and the remainder be applied to the reduction of fares.

Do You Want a Cost-of-Service Franchise?

To give in 1919 the service which unsolicited comments from other cities termed the best in the United States would cost \$2,116,691.77 more than in 1917. Giving that service at a five-cent fare would throw your street railways into bankruptcy.

Yet the Twin Cities want that service and need it. At this time it is only under a Cost-of-Service Franchise that your street railways can provide it.

The alternative way of providing it, is to have the City do it under municipal ownership.

If you need to consider the facts before making up your mind, send for **FOUR CHOICES**—a booklet giving the dollars-and-cents facts about street railway service.

TWIN CITY LINES

COST OF SERVICE FRANCHISE?

CONCRETE CONTRACT?

MUNICIPAL OWNERSHIP?

ULTIMATE RECEIVER-SHIP?

What Are Your Street Railways Worth?

The total invested capital in your street railways is \$45,238,000.

It is, however, maintained with reason that the capital invested in any business seldom represents the present value of that business. It may be more, it may be less.

Expert valuation is generally necessary to determine the true value.

A number of such valuations of portions of your street railway properties have been made; all but one of them reaches a sum which, when extended to the total mileage, approximately equals the capital invested.

The difference between expert valuation totals and capital invested totals is often referred to as "water."

Is Pavement "Water"?

Recognized competent engineers in valuing the street railway property have placed a valuation of \$1,906,208.09 on a part of the new paving paid for by the Company. Some people claim this has no capital value at all.

Yet the money for this pavement was furnished by the investors in the Company's stock and other securities.

Those who call this investment in pavement "water," would say that a home-owner who has paid out \$1,000 for improvements on his home, is not entitled to consider that \$1,000 as added value in his property.

Do you think that money invested in the construction of new pavements is "water"?

Send for **FOUR CHOICES**—a booklet giving the dollar-and-cent facts about the operating costs of your street railways.


TWIN CITY LINES

COST OF SERVICE FRANCHISE?

CONCRETE CONTRACT?

MUNICIPAL OWNERSHIP?

ULTIMATE RECEIVER-SHIP?



Why a New Franchise Is Needed

No business man would think of building a million dollar factory on ground leased for only four years.

He would want a long time lease before he invested his money.

But Minneapolis wants your street railways to build new street car lines that will cost more than a million.

Yet the Minneapolis Street Railway franchise has only four more years to run.

A new franchise must be granted before new construction can be undertaken on a large scale.

The sooner a new charter is granted, the sooner can the Company borrow the money needed for additional lines.

New Minneapolis Lines to Cost \$1,144,356.00

Building the needed Seventh Street, Twelfth Ward and other Minneapolis lines would cost \$1,144,356.00.

The Seventh Street line alone would cost \$239,290.00.

The Twelfth Ward line alone would cost \$177,868.00.

Building these lines not only mean much to the districts served but would better street car operation generally.

Your street railways would like to build all the needed lines. They cannot do so under the present franchise.

Minneapolis has been considering granting a new franchise for some time. Some progress is at present being made.

In the meantime there is only one way to hurry construction of needed new lines.

If the City of Minneapolis, or the residents of the districts served, will guarantee the necessary loan—so that investors will be properly protected—new construction can be begun at once.

TWIN CITY LINES

COST OF SERVICE FRANCHISE?

CONCRETE CONTRACT?

MUNICIPAL OWNERSHIP?

ULTIMATE RECEIVER-SHIP?

READ "FOUR CHOICES"

TWO TWIN CITY EDUCATIONAL CAR-CARD ADVERTISEMENTS


cost \$2,116,691.77 more to provide in 1919 the same service as was given in 1917. It was then shown what proportion of this amount went to various items of expense. Beginning with the second advertisement each insertion ended with the request that the reader "send for the booklet, 'Four Choices.'" This is a twenty-page 3½-in. x 6-in. booklet explaining the increases in cost of operation and announcing that the four choices which the public has for the future of the company are the granting of a cost-of-service franchise, commission control, municipal ownership and ultimate receivership. An explanation of what each means was given. The back cover of the book is a detachable post-card upon which the reader is asked to vote on the four choices.

The third advertisement, announcing that the largest stockholder in the company holds only 1.6 per cent of the total stock and that the average dividend for twenty-eight years has been 3.6 per cent, ended with the statement of the four choices each superimposed on the company insignia.

Each insertion carried some very interesting facts similar to those mentioned. For instance, No. 7 gave a tabulation of 370 cities where fares have been increased, together with the amounts of increase, populations of cities, etc. No. 13 announced that the company is receiving an average of 3.68 cents per passenger carried, not enough to pay operating charges. Beginning with this advertisement also a black spot with some statement regarding cost of operation set off in white letters was placed at the top of each advertisement to attract attention. No. 14 explained what a cost-of-service franchise is. Other advertisements have included data on paving costs, the valuation of the company's property, the mortgage upon the property, the cost of advertising, etc.

Each of these advertisements measured 9 in. x 16 in. and was inserted for a period of one week. Six different daily papers were used and thus each advertisement appeared one day in each paper.

Beginning about April 1, a series of car-card advertisements began to appear in all cars. The card was fastened inside the upper portion of the window and the back, or street side, in every case carried the request that the observer "Read 'Four Choices.'" In addition to the illustration of the booklet "Four Choices," which appeared on every card, some of the statements other than those which appear in the reproductions have been as follows: "To Give 1917 Service in 1919 Will Cost \$2,116,697.77. More Than in 1917"; "Wage Increases Alone Will Add to the Cost of Giving 1917 Service in 1919 \$1,360,003.66"; "Your Street Railways Must



In 1917, There Were
 199,621,160 Cash Fare Passengers
 73,678,873 Transfer Passengers
 273,300,033 Total Passengers
 The Cash Paid Per Ride Was
 3⁶⁸/₁₀₀ Cents

Send or Phone to
 TWIN CITY LINES
 For This Booklet

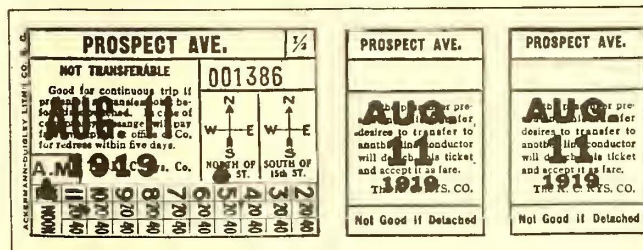
Pay \$1,222,200 in Interest on Mortgages in 1919"; "The Average Dividend of Your Street Railways for Twenty-eight Years Was 3.6 Per Cent." Each of these cards ran for one week.

In presenting the facts by the method which was employed in this publicity campaign, it is believed the people have received a much better knowledge of the situation and are beginning to realize the necessity for taking some action. Now that the valuation figure for Minneapolis has been decided upon, the cost-of-service franchise becomes a clear-cut issue. The publicity will, therefore, now deal more with an explanation of what a cost-of-service franchise is and will include data along this line.

New Transfer for Kansas City

A NEW transfer was put in use by the Kansas City Railways on Aug. 10, and an ordinance passed by the City Council making it a misdemeanor for anyone to traffic in transfers. These steps have been taken in an effort to stop the transfer abuses that have grown up among the company's patrons. The fraudulent use of transfers at the Union Station became so extensive under the old system that transferring of passengers from one line to another at that point had to be prohibited on July 25.

The stub of the transfer, 2¼ in. long, is a condensed



TRIPPLICATE TRANSFER USED IN KANSAS CITY

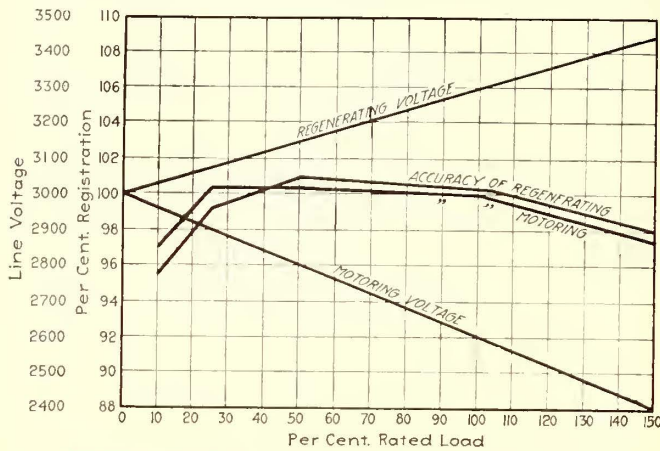
reproduction of the transfer used prior to May 1. If a passenger wishes to transfer once only he turns it in to the conductor of the second car. If he wishes to transfer twice, the conductor of the second car tears off one coupon and returns the remainder to the passenger. The second coupon is torn off by the third car conductor if the passenger wishes again to transfer. The chief advantage of the new form of transfer is that the company may now obtain an accurate record of the number of times each passenger transfers.

The new transfer permits and provides only for time and direction punching and for punching half-fare. The transfer is overprinted in red with the day of the month.

Duplex Dial Watt-Hour Meter for Electric Locomotives Using Regenerative Braking

TEN new locomotives for the electrified divisions of the Chicago, Milwaukee & St. Paul Railroad are being equipped with Economy watt-hour meters to measure the energy consumed in driving the trains and the energy returned to the line through regenerative braking, each reading being shown on one of two cyclometer-type dials.

The locomotives are of the Baldwin-Westinghouse passenger type, each equipped with six 533-hp. twin-

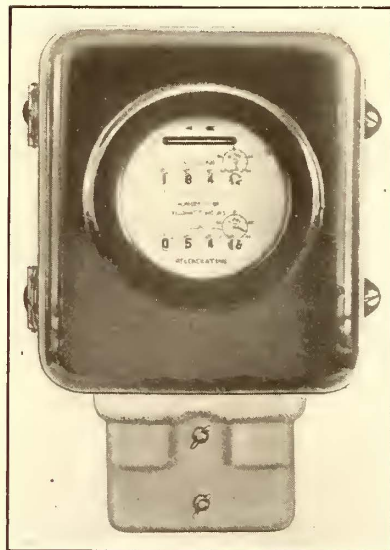


CURVES SHOWING METER REGISTRATION UNDER OPERATING CONDITIONS

armature motors. Each locomotive has one meter. The meters are a modification of the type ordinarily used with single dials. The distribution of certain accounting charges is done on a basis of the watt-hour consumption used by these locomotives for the respective classes of train service. The meters provide a check on this and on the use of power in connection with the handling of the train and also provide operating

and engineering data which must be known to check the operation of the system as a whole.

An idea of the wide voltage and load conditions can be gained from the fact that the voltage varies from an average of 2600 on motoring to an average of 3300 on regeneration. Graphs giving the load characteristics are shown in the accompanying illustrations. From these graphs it will be seen that there is



FACE AND DIALS OF METER

a variation of less than one-half of 1 per cent in the accuracy of registration between motoring and regeneration from 25 per cent to 150 per cent of rated load and over a potential variation from 2400 volts to 3450 volts. This characteristic has been achieved through the use of the standard meter element with special series compounding. Each meter has an external shunt

of 800 amp. normal capacity, capable of high overload service. The meter element has one series compound winding around the shunt field. This compound winding is reversed from normal practice and therefore acts as a bucking compound winding when the locomotive is motoring and as a boosting compound winding on regenerating. This winding is a part of the current circuit and carries the full-load current of the meter element which is 10 amp., diverted by the 800-amp. open-type shunt which is cut in on the negative side of the motor group.

In mechanical design these duplex dial locomotive meters differ from the regular Economy meters as used in electric railway power-saving work only in the dials and gear trains. The dial is of the duplex type with openings for two sets of figures. The reading for the motoring is above and for regenerating below, so that a subtraction can easily be made to get the actual net energy used for any period. The single meter element drives the two gear trains through a differential, so arranged that when the locomotive is motoring, the energy drawn from the trolley is registered on the upper train, and when it is regenerating the energy is recorded on the lower train. The reversal is made without loss of motion in the gear train.

In the design of this meter standardized parts are used. The meter element is so mounted on a sub-base that it may be removed from the case with little effort and without disturbing any heavy circuits. The case which protects the element is of heavy construction with tight-fitting joints designed to exclude dust. These meters, without their shunts, may be easily checked as 10-amp. units.

Association News

ATLANTIC CITY CONVENTION, OCT. 6 TO 10

Engineering Standards Committee

THE committee on standards of the Engineering Association will meet at association headquarters on Aug. 25 and 26. Several reports of committees are already in the hands of members of the standards committee for advance study. Chairman H. H. Adams has announced the appointment of Martin Schreiber, chief engineer, Public Service Railway, Newark, N. J., as vice-chairman of the committee.

Public Service Commissioners at Convention

SECRETARY E. B. BURRITT has announced the intention of the association to extend an invitation to all public service commissions to be represented at the Atlantic City convention. It is suggested that companies extend invitations to members of their commissions and to local and state officers. So much of the program will be devoted to readjustment problems that it is the belief of the association officers that these public officials would find the convention interesting and profitable.

The committee on compensation for carrying United States mail was meeting in New York City as this issue went to press. A report of the meeting will be given in a later issue.

News of the Electric Railways

FINANCIAL AND CORPORATE • TRAFFIC AND TRANSPORTATION

PERSONAL MENTION

Portland Wage Details

Oregon Company Points Out Its Inability to Meet War Labor Board Award

The Portland Railway, Light & Power Company, Portland, Ore., has been advised that the War Labor Board, in its final session in New York, referred to in the *ELECTRIC RAILWAY JOURNAL* for Aug. 16, granted to the employees wage increases amounting to 12 per cent. The increase granted is only three-fifths of the advance asked by the men. It is announced by union officials that negotiations will be immediately opened with the company for a further increase.

The application to the board was made for higher wages dating from April 1, and in the absence of detailed information it is presumed that the scale is retroactive to that date. The previous scale of wages ranged from 50 cents an hour for the platform men, and those in ordinary labor, to more than \$1 an hour for work of an expert character. On April 1, 1917, the minimum for platform men was 26 cents an hour, and the maximum 31 cents an hour. The wage has been gradually advanced, until on Oct. 24, 1918, the War Labor Board, after long delays, finally announced a scale of 46, 48 and 50 cents an hour for platform men. The men, in their last appeal to the War Labor Board, asked for a maximum of 60 cents an hour.

Franklin T. Griffith, president of the company, in a public statement, said that the railway cannot pay the increased wages and continue to operate. He says it is up to the public authorities to determine how the emergency shall be met. Mr. Griffith is quoted as follows:

The flat increase of 12 per cent in wages to all traction employees of the company means an increase of \$27,000 to \$28,000 a month in the operating expenses of the railway. The lines are not now, at the present rate, earning fixed charges, and are making no returns to stockholders. The new rate of wages will be 95 per cent higher than two years ago, and with higher costs of materials of all kinds, it puts the operating costs of the railway more than 100 per cent higher than two years ago. The railway cannot pay those charges and live. If we are to pay the increased scale of wages, it will be absolutely necessary that additional revenue be secured.

Seattle Strike Vote Postponed

The indications were on Aug. 15 that the threatened strike of the employees of the Seattle Municipal Railway as a protest against the seniority rule made by Thomas F. Murphine, superintendent, would be avoided. The strike vote called by the union has been postponed, and an attempt is being made to settle the dispute. Mayor Ole Hanson has

suggested to the representatives of the union that Mr. Murphine's ruling need not be final, and that the men have the right to appeal to the City Council or Board of Public Works, and if Mr. Murphine's ruling is found to be unfair, it can be ordered changed. Mayor Hanson points out, however, that the union must agree to abide by that decision, and that the threat of a strike will not affect the settlement of the question. It is not believed that the matter will be taken to the City Council.

New York Surface Railway Wages Advanced

On Aug. 19 Judge Mayer in the Federal Court at New York approved the suggestion of Job E. Hedges, receiver of the New York (N. Y.) Railways, to increase the pay of all employees of the "green car" lines 25 per cent. An increase of 10 per cent had been made to the men the previous week, but this was not satisfactory to members of the New York Railways Brotherhood, who called upon Mr. Hedges on Aug. 19 to discuss a proposal for an additional increase. The increase is equivalent to that which was granted by the Interborough Company to its employees in the subway and elevated strike settlement.

On the same day Judge Mayer wrote to Louis Fridiger, representing the Amalgamated Association, which conducted the strike in Brooklyn, that he would not tolerate any attempt of the Amalgamated to disrupt the Brotherhood of the New York Railways. He said the brotherhood had protested against the activities of agents of the Amalgamated and had continued faithful service during the Interborough strike and while Mr. Hedges and Judge Mayer himself were coming to a decision upon the employees' request for more pay.

Judge Mayer declared his belief that the public was "sick and tired" of strikes and bickerings. He said that it was the duty of the court and the receiver to preserve the use of the "green car" lines for the public, as well as to insure the safety of the investment by thousands of persons, and that he proposed placing the blame upon the shoulders of the Amalgamated officials if they caused the strike.

The Third Avenue Railway, New York, N. Y., on Aug. 20 announced an increase of 25 per cent in pay to its uniformed men, effective immediately. The company operates in Manhattan, Bronx and Westchester. Under the increase the men will receive from 52 to 62 cents an hour. They had been getting 41 to 49 cents an hour.

"L" Nearing Completion

Entire Frankford Line, Philadelphia, Expected to Be Completed Some Time Next Year

Such rapid progress is being made in the construction of the Frankford elevated line which extends from within a short distance north of Arch Street, Philadelphia, to Dyer Street, Frankford, that the belief is expressed by municipal officials that the entire road will be built and in operation before the close of 1920.

ELEVATED SUPERSTRUCTURE COMPLETED

The superstructure of the elevated has been completed on Front Street to Callowhill, and the Phoenix Iron Company is now building the road south of that point to within a short distance of Arch Street, where, according to the plans, the physical connection with the Market Street subway is to be made.

Plans and specifications have been drafted by the Department of Transit for continuing the big operation, and proposals will be opened the latter part of this month which will call for work and materials that will involve an expenditure of several millions of dollars. The most important of these is the furnishing and laying of rails for a double track the entire length of the superstructure, a distance of 5½ miles, making 11 miles of track.

Proposals will be opened soon by the department for continuing the construction of the road from the present terminus at Dyer Street to Bridge Street. These proposals will call for concrete foundations and column piers to support the superstructure. Proposals will also be received soon for razing eight structures on Water Street above Arch, and a like number of buildings on Front Street, all of which have been acquired by the city under condemnation proceedings. The removal of these buildings will permit of the erection of the superstructure to the point where the line will connect with the Market Street subway. Under the specifications all the foundation piers and columns must be completed by Dec. 31 of this year, and the laying of the double-track by April 30, 1920.

PLANS CONSTRUCTION OF STATIONS

Plans have also been completed, and in a short time the department will ask for proposals for erecting more passenger stations on the line of the elevated railroad.

The matter of the lease for the operation of the road by the Philadelphia Rapid Transit Company remains to be arranged.

Subway and Elevated Tied Up

Short Strike in New York Settled on Basis of 25 per Cent Wage Increase

The trainmen in the employ of the Interborough Rapid Transit Company, New York, N. Y., went on strike on Sunday morning, Aug. 17, tying up the subway and elevated lines of that company in the Boroughs of Manhattan and the Bronx and the extensions to Brooklyn and Queens. The men who went out belonged to the Brotherhood of Employees of the company. They struck to enforce demands for an increase in wages amounting to 50 per cent.

ROADS IDLE TWO DAYS

For forty-three hours not a train was operated on the lines. A settlement of the matter was finally brought about on the night of Monday, Aug. 18, and service was resumed in full on the morning of Tuesday, Aug. 19. The men will get an advance of 25 per cent. The previous week they had been advanced 10 per cent. The terms of the settlement follow:

1. The men to return to work immediately.
2. A flat increase of 25 per cent of the rates of all the wages paid over and above those paid on Aug. 1, 1919.
3. All other questions to be negotiated between the Brotherhood and the company, and in case of the failure of such negotiations, to be arbitrated as provided for in the constitution approved by the directors.
4. All members of the Brotherhood of the Interborough Rapid Transit employees to be restored to their former positions, and each to retain his individual seniority in the service.

The platform expense of the company will be increased \$4,800,000 a year, under the settlement. Officials of the company made it plain that unless the company receives relief through an increase in fares the railway faces bankruptcy.

The strike was settled at a six-hour conference in which officials of the company, officers of the Brotherhood, Public Service Commissioner Nixon and Governor Smith participated.

The tying up of the lines resulted in great confusion. The steam railroads put on extra cars and trains and the surface lines did their best, but the facilities afforded by them were totally inadequate to cope with the more than 1,500,000 passengers a day, who were so unexpectedly thrown upon them for transportation.

THE MAYOR IGNORED

The strike has not been without its animosities. Mayor Hylan, avowed advocate of municipal ownership, sees in the strike only a great conspiracy on the part of the company to secure an increase in fares. Shut out from the negotiations which resulted in the settlement, he and the District Attorney have been writing letters to each other. They promise a Grand Jury inquiry. On the other hand, the Amalgamated Association, which apparently has been making little headway in its efforts to organize a local among men in Manhattan, sees in the strike and

the settlement collusion on the part of the management and the Brotherhood to prevent the Amalgamated from making any progress toward organizing the men.

The rates of pay which were in effect previous to the strike settlement are as follows:

Position and Service	Cents.
Motormen, first year.....	50
Motormen, second year.....	53 $\frac{1}{2}$
Motormen, third year.....	56 $\frac{1}{2}$
Motormen, fourth year.....	59 $\frac{1}{2}$
Motormen, thereafter.....	62 $\frac{1}{2}$
Conductors, first year.....	43
Conductors, second year.....	44
Conductors, thereafter.....	45
Guards, first year.....	39
Guards, second year.....	40
Guards, thereafter.....	41
Towermen, first class, first year.....	46
Towermen, first class, second year.....	49
Towermen, second class, first year.....	44
Towermen, second class, second year.....	46
Switchmen, first year.....	44
Switchmen, second year.....	46
Special officers, first year.....	35
Special officers, second year.....	36
Platform men, first year.....	34
Platform men, second year.....	35

The motormen, conductors, guards and towermen get one day off per month with pay and the switchmen, special officers and platform men are given two days off per month with full pay.

St. Louis Wage Award Announced

A wage increase of 45 per cent has been granted to employees of the United Railways, St. Louis, Mo., in a decision handed down on Aug. 15 by the Public Service Commission of Missouri. All increases are to date from June 1, 1919, and become effective on Sept. 1.

If the men accept the award the advance authorized will make the total increase in the wages of the men 96 per cent since June 1, 1918. Approximately 5500 workers are benefited. Under the present sliding scale of wages the carmen receive a minimum of 36 cents an hour and a maximum, which is not attained until the ninth year of employment, of 42 cents.

The men, in recent wage demands, sought increases on the following basis: For the first three months, 55 cents an hour; for the next nine months, 60 cents an hour; for the second year and thereafter, 65 cents an hour.

The commission fixed the wage scale as follows: First year, 50 cents an hour; second and third years, 55 cents an hour; after the third year, 60 cents an hour.

The men also had demanded an eight-hour day, to be completed in nine hours, time and a half for overtime and a guarantee of \$110 a month for conductors and motormen of the company on the extra list.

The arbitrators ruled that the men shall complete their eight hours work in nine hours on 40 per cent of the runs; in twelve and one-half hours on 40 per cent of the runs, and in fourteen hours on 20 per cent of the runs. Work on holidays is not to exceed eight

hours and payment is to be made for actual working time and a minimum of six hours. Employees who volunteer to work overtime are to receive the regular rate while those who are required to do so are to get time and a half, according to the ruling. The wages of other employees are too numerous to be given in detail, but in general the employees other than trainmen receive an increase of 45 per cent.

No mention was made in the ruling on the company's application for increased fares to meet the wage increase, except a reference to Receiver Rolla Wells' estimate of the cost of the wage increase.

Massachusetts Investigating Commission Filled

To replace Robert F. Herrick, Milton; James L. Doherty, Springfield; George W. Anderson, Brookline, and Levi H. Greenwood, Gardner, who have declined to serve on the Massachusetts Electric Railway Investigating Commission, Governor Coolidge has nominated Roland W. Boyden, Beverly; Charles Giddings, Great Barrington; Charles S. Ashly, New Bedford, and David A. Belden, Boston and Haverhill, who have accepted and been confirmed by the Council. The other members of the commission are Ex-Congressman Charles G. Washburn, Worcester; Senators Cavanaugh of Everett, Hardy of Huntington, and Walsh of Boston, and Representatives Kneeland of Winchester, Young of Weston, Allen of Norwood, Maloney of Chelsea, and McDonald of Boston. It is expected that the commission will begin work immediately.

Railway Concessions Sought in Mexico

Applications filed by American and other foreign investment interests for concessions for the construction of electric and steam railroads and various other kinds of industrial enterprises are now pending with the Department of Communications and Public Works of the Mexican government. It is indicated by the attitude of the Carranza administration toward outside capital that these applications may all be rejected. The government has already adopted the policy of not granting any new concessions for the construction of additional lines of steam railroad. It has announced its intention of doing on its own account whatever railroad building may be deemed necessary, adding such lines to the National Railways of Mexico.

Recently application was filed with the Department of Communications and Public Works for a concession to construct an electric interurban railway through the oil fields of the Gulf Coast region, connecting Tampico and Tuxpam. The proposed line would be about 120 miles long. No action has as yet been taken upon this application. American oil interests are back of the project.

Pittsburgh Men Go Out in Spite of Contract

A Story that Puts the Blame Where It Properly Belongs
Purposely Told at Length

Arrangements to operate the lines of the Pittsburgh (Pa.) Railways despite the strike that has tied them up since midnight on Aug. 14 were started by the receivers of the company on Thursday night, Aug. 21, after the platform men had voted by an overwhelming majority against returning to work under the wage award of the War Labor Board.

The hope of the receivers was that they might be able to resume operation with at least a part of the strikers in view of the fact that the action of Division 85 of the Amalgamated Association in calling the strike was a violation of their agreement following the May strike to accept the arbitration of the War Labor Board.

As a result of this situation the receivers contended in a public statement issued on Thursday night, Aug. 21, that no man by returning to work would imperil his standing as a union member. If the strikers failed to respond to their call, however, the receivers announced their intention of manning the cars in some other way.

On the afternoon of Aug. 21 upon the advice of W. D. Mahon, international president of the Amalgamated Association, Division 85 voted on the question: "Shall Division 85 return to work, perform its contract obligations and live up to the laws of the international union?"

MEN VOTE NOT TO RETURN

The vote was "No," 2521 to 63. The receivers immediately started arrangements to resume service without further dealings with the local union. They specified, however, in their public announcement that any striker returning to work would be considered and dealt with as a union man. They applied to the Mayor for police protection and immediately all policemen on vacation were ordered back to duty.

The platform employees, 3300 in number, walked out at midnight on Aug. 14 in protest against the smallness of the award made to them by the War Labor Board. The men, in striking, repudiated an agreement that bound them to accept the award. Moreover, they struck in the face of advice from the officers of the local division of the union and in defiance of the orders from the international officers. The men have been sued by the receivers of the railway for \$900,000 damages, and have been accused, by counsel for the receivers, in a more recent court action, of having sacrificed their standing in the eyes of the law. Opposition of the international officers of the union to this strike has become so pronounced that the strikers have been threatened with expulsion from the Amalgamated Association unless they return to work and live up to their agreement.

The Pittsburgh award was made on Tuesday, Aug. 12. The men had asked that their wages be made 55, 58 and 60 cents an hour, according to the length of service; these figures were 12 cents above the existent rates for the respective classes. Instead, they were given a 12 per cent increase, which made their wages 49, 52 and 54 cents.

STRIKE THREATS MADE

Next day there was a hubbub of strike threats among the men. The situation darkened. At midday, the receivers issued a statement, apparently to offset this talk of a walkout. The statement caused a mild sensation, for embodied in it was the text of an agreement, signed by the receivers and the representatives of the men, which absolutely bound the men to accept whatever decision was made by the War Labor Board. It was the first hint of the existence of such a document. The statement showed that the agreement was drawn up on May 19, last, just at the close of the four-day strike at that time. The crucial paragraph, and the one upon which the strike was later outlawed by the national leaders of the men's own union, read:

It is further agreed that the decision of said board after approval by the said court (the United States District Court, of which the railway is now a ward) shall be valid and binding upon the parties hereto.

Eight men of the union had signed it. In order to validate this clause in the most evident manner, the receivers went into the district court the next day, Thursday, and petitioned the judges to approve the award. At the same time they issued a statement announcing their intention of abiding by the award, and their confidence that the men should be held to it. It was also made plain in the same statement that even the increase allowed by the War Labor Board would necessitate another and, perhaps, a substantial advance of the fare. The present fare was put into effect only fourteen days before and made increases in all the rates. It would take \$1,050,000 to give the men the 6-cent advance, the receivers claimed. In this connection they declared:

If these wages are paid no justice can be done to the people whose money is honestly invested in the property, except by a further increase in fare together with a material reduction in the service, which has been suggested as a last resort. We wish, if possible, to avoid the application of these means of raising additional revenue; but we cannot shirk the responsibility of considering it as a remedy—and one which we contemplate with grave apprehension. If the law permitted, a possible solution would lie in direct help from the city in order to avoid excessive fares. If this is impossible at present, the city and boroughs still could help very materially by relieving the railways of many of the burdens.

As the day wore on it became even more plain that a strike was inevitable. The call went out for the meetings at

which the men were to cast a strike vote. The strike vote was cast first by the night men. They were unanimous for a walkout. While they were thus engaged the wage committee for the men waited upon the receivers and asked them to petition the court for a straight 12-cent increase. The receivers refused. Mayor E. V. Babcock addressed a letter to both sides in the controversy, demanding that a strike be put out of mind, and giving warning that it would probably be unpopular, if attempted. A committee of business men and officers of the Chamber of Commerce jumped into the breach and insisted upon amicable settlement. William D. Mahon, international president of the Amalgamated Association, addressed a wire to the men warning them to "go slow." William B. Fitzgerald, first vice-president, wired that a strike would probably be illegal.

In the face of all this, the day men voted solidly to strike. Three hours after they had cast their ballots, the strike was on.

MEN SEIZE THE REINS

It became apparent then that the men had literally seized control of the situation. P. J. McGrath, international vice-president, admitted to the business men's committee that "these street car men will not listen, even to their representatives. They are working on their own authority in this instance."

Immediately upon the beginning of the strike, the receivers embarked upon a policy of publicity that has since characterized their conduct. They began to explain the situation in the most minute detail in statements issued two or three times each day. The first of these statements, dictated on the first morning of the strike, declared that the receivers had asked Messrs. Mahon and Fitzgerald to Pittsburgh in the hope that the international officers could be impressed with the fact that the strike was wholly illegal, in view of the violation of agreement by the men, and that the officers might order the men to return to work. Unless that was done, the statement went on, the receivers would go into court at once and ask for an order requiring a specific performance of contract on the part of the men. Later that day the receivers gave warning that they contemplated a rejection of the entire principle of collective bargaining unless the union was able to prove its power to carry out its agreements. Recourse would be had to individual negotiations with the men, it was threatened.

Business men, perturbed by the havoc the strike was working with them, begged the receivers to pay the men the 12 cents increase. This only drew from the receivers a tart reply to the effect that "although we can again increase fares with the consent of the Public Service Commission, we cannot compel people to ride on the cars, and experience has taught us that increased fares do not by any means insure increased revenues." The business men thereupon retired from the situation

The Mayor brought the receivers and representatives of the men together on Saturday morning, Aug. 16. They conferred all day and got nowhere. In desperation, Mayor Babcock wired to Mr. Fitzgerald to come to Pittsburgh and take charge of the situation. To this Mr. Fitzgerald replied:

I cannot participate in this conference (the meeting of the receivers and men). The membership of our organization in Pittsburgh are acting upon their own initiative. The local officers and members, from the telegrams that have been sent them, clearly understand the position of their international organization in connection with the present controversy.

The telegram was immediately seized upon by the receivers as the basis for a call to the men to be prepared to act as individuals in the event the company decided to operate the cars. Their statement read:

Should it become necessary for us to call for men to operate the cars, notwithstanding the strike, it must be remembered that union men who respond to the call will not thereby impair their union standing. In fact, they would be doing their organization a service by protecting its good name through the faithful upholding of its contracts. The strike is not binding upon anyone, because it is contrary to the laws of the organization and against the protest and instruction of its international officers, as well as in repudiation of its signed agreement.

The men agreed to take a referendum on Aug. 21.

On Sunday, the receivers appealed to Mr. Mahon, asking: "Are you in a position, as officer of the organization, to require the members of the local division to comply with the said agreement?" Coincidentally, they made a threat that they were "formulating plans, which, with the co-operation of the public, will result in the operation of the street cars at an early date."

Mr. Mahon's answer to the appeal from the receivers came in the form of an earnest suggestion to the strikers to reconsider their action, and it was accompanied by a request that the receivers deal leniently with the men.

Meanwhile, the receivers had entered suit for damages against Division 85 of the Amalgamated Association in the United States district court. The suit names the association, eight members of the wage scale committee of the association and 100 motormen and conductors who were alleged to have been active in the pre-strike agitation, as the defendants. The receivers claim the \$900,000 to compensate them for the loss of revenue that has resulted and must hereafter result through the failure of the cars to operate. The receivers reserve the right to add to the list of defendants.

On Tuesday afternoon, counsel for the strikers appeared in court and filed objections to the wage award as made by the National War Labor Board. Great stress was laid upon the rate of wages now paid railway men in other cities of America, notably Detroit, Boston, Cleveland, Philadelphia, Chicago and New York. Attention of the court was also called to the fact that the Homestead & Mifflin Street Railway, operating a system about 12 miles from Pittsburgh, was paying its men 60 cents an hour.

At the same time the strikers issued their first public statement. It was an attempt to justify their repudiation of contract. They said:

The record of the men in keeping their obligations is vastly better than that of the Pittsburgh Railways; the courts of the county are filled with lawsuits brought by the city and other interested parties in an endeavor to compel this corporation to comply with its solemn obligations, while this is the first time that such a charge has been brought against the members of this organization. If the dispute is to be adjusted, it will not be by measures of coercion, but by recognition on the part of the receivers and the public of the facts in the case.

The district court on Wednesday morning, took up the hearing on the objections of the men to the award as made by the War Labor Board. Attorney George E. Alter, counsel for the receivers, immediately called the attention of the court to the fact that the men had gone out on strike since the award was made. Consequently, he argued, they had no standing in the law and could have none until the resumed operation of the cars. He asked, therefore, that their objections to the award be stricken from the records. Attorney C. Elmer Bown, for the men, admitted he was a trifle uncertain as to the legal status of the men, in view of the strike, and moved that the court set a later date for a hearing on Mr. Alter's motion. Friday morning was named by Judge C. P. Orr.

Judge Orr, speaking of the situation in which the men now find themselves, said:

They are in a very unpleasant position and the stand they have taken is unfortunate. A board of arbitration is a court and men are bound to honor decisions of court. Some people, it is true, break contracts; but I have my doubts as to the morality of a man, or body of men, rich or poor, who will willingly break an agreement, as in this case.

MEN REVERSE THEIR POSITION

Copies of the minutes of the receivers' meetings, supplied to the ELECTRIC RAILWAY JOURNAL, indicate that the suggestion that the award of the War Labor Board be made binding was the direct proposal of the men and was incorporated in a letter submitted by the authorized officers of the union May 9, last. All through the strike last May, the men demanded unequivocal approval of the principle of a binding award, and in this strike they are assuming opposition the position and are directly fighting it.

On behalf of the receivers, it has been made plain that the wages in other cities are not fair criterions of what should be granted in Pittsburgh. The 12 per cent increase was given because the cost of living had increased 12 per cent in one year, and the increase was in keeping with that made by the War Labor Board at the same time for other cities.

It is pointed out by the receivers that in the hearings before the War Labor Board in Washington, only two witnesses were put upon the stand by the street car men, although in other arbitration hearings as many as 25 or 30 were called upon to prove that higher wages were justified.

Aurora-Elgin Strike Continues

Up to Aug. 19 there was no apparent change in the strike on the Aurora, Elgin & Chicago Railway, Wheaton, Ill. Service has been suspended since 4 a.m. on July 30. The appointment of a receiver for the road has apparently had little effect on the strike.

During the week ended Aug. 16 all-day conferences were held between representatives of the men and Edwin C. Faber, manager for Receiver Joseph K. Choate, and while no settlement has been effected, some progress has been made. Mr. Faber announced that a tentative agreement on the classification of employees other than trainmen had been made.

Interurban Men Strike

Platform men of the Ohio Electric Railway left their cars on the morning of Aug. 15. The entire system, with the exception of the Dayton-Indianapolis division and the Dayton-Cincinnati division, is at a standstill. Local lines at Zanesville, Newark and Lima are also affected and there is some trouble on the line at Springfield.

Aside from the asking for an increase of 10 cents an hour in pay, the union men want the miscellaneous employees recognized as members of the union with an increase of 25 per cent in wages. This the company has so far refused to do. The company offered an increase of 3 cents.

B. R. T. Recognizes Union

The Amalgamated Association has won recognition in Brooklyn. On Aug. 14 Judge Mayer, by whom Lindley M. Garrison was appointed receiver of the Brooklyn Rapid Transit Company, wrote to Frederick P. Royce, general manager for the receiver, that it had been established to the satisfaction of Public Service Commissioner Nixon and himself that at midnight on Aug. 8 more than 50 per cent of the employees of the company eligible to membership in the Amalgamated were enrolled members of the association. He requested Mr. Royce to take up the matters in dispute in the absence of Mr. Garrison. He laid down the procedure as follows:

The next step under the agreement is to entertain the grievances presented by the committee, headed by E. D. Smith, or such substitute, or such committeemen that may be properly substituted in place thereof, according to such committee at least the same recognition as is now accorded the Brotherhood of Locomotive Engineers, to receive the committee presenting the grievances, and take the same up with such committee with such advisers or counsel as such committee selects.

In accordance with these instructions efforts to settle in conference the differences which resulted in the recent strike were begun on Aug. 19 when a committee of the Amalgamated Association went into conference with Mr. Royce, in the absence of Receiver Lindley M. Garrison, and George D. Yeomans, counsel for the company. Failure on the part of the conferees to agree on the matters in dispute will result in arbitration.

Makes Plea for Co-operation

The Philadelphia (Pa.) Rapid Transit Company has reprinted in pamphlet form a letter from President T. E. Mitten to the employees. The trainmen are asked to read the letter carefully and carry it with them. The letter is a plea for still closer co-operation. The company says it wants more rides at 5 cents, not fewer rides at higher fares. The appeal follows in full:

We added \$1,750,000 to our annual payroll in August, 1918, and overcame the cost by skip stops and other economies. We have added approximately \$2,250,000 to our annual payroll in August, 1919, and will overcome the cost by withdrawing all duplicated or unnecessary car service and removing all wasted effort from the car schedules.

*We Want More Rides at 5 Cents
Not
Fewer Rides at Higher Fares*

Street-car riding is a habit which can be encouraged.

Co-operation in this, as in all other matters, will work wonders.

The management must provide the best car service for the greatest number of people at the lowest possible cost.

Conductors, by alertness and courtesy, must endeavor to make the street-car ride an agreeable experience to the passenger—a smile always helps.

Motormen must watch out for passengers and space the cars to catch the short distance riders—pick up all the nickels.

Employees generally must never miss a chance to help win the public. Tell everybody what we are now doing and what nine years of co-operative effort has accomplished in building wages up and keeping fares down.

Note the following:

Philadelphia, up to 1911, was always in trouble with its street-car system—strikes every little while, men underpaid and the worst service imaginable. Deep-seated prejudices were established in the mind of the public and the employees were openly hostile to the management.

Philadelphia, since 1911, has suffered less from labor disturbance on its street railways than any other large city.

Philadelphia's street-car service is supplied to-day by a loyal and satisfied body of men, who are a credit to the company and of whom the city may be justly proud.

Philadelphia has to-day less trouble with its street-car service than ever before in its history.

Philadelphia has retired all of its old, four-wheeled cars and has to-day a greater proportion of modern, double-truck cars than any other large city.

Philadelphia is to-day the only large city in this country where street-car fares have not been increased by some method.

A New Labor Policy

Rolla Wells, receiver for the United Railways, St. Louis, Mo., has announced that the company will abandon all secret lines of communication by which it has been getting information of the deliberations of the union. Mr. Wells also made known the fact that he had discharged James F. Brady, confidential employee of the claims department. In regard to the decision to terminate the supply of "inside information" about union matters, Mr. Wells said:

I am doing this in fairness to our employees. In the future their union meetings are not to be spied upon with the consent of the receiver. All such information will now cease to be received by the company. We are going to act open and above board in our dealings with our employees who belong to the union. We shall be fair with them. As a matter of fact, I do not care what goes on at the union meetings.

H. M. Nelson, the head of the local branch of the union, expressed himself as delighted with the announcement

made by Mr. Wells and said it assured co-operation of the employees with the company.

Improvement Program Announced

Complete rehabilitation of the property of the United Railways, St. Louis, Mo., within the next year and a half is the plan of Rollo Wells, receiver, and Albert T. Perkins, general manager.

Among the improvements planned are the following:

Use of 100 lb. T-rails for relaying purposes.

Purchase of a large number of new cars with modern motors.

Relaying of 21 miles of rail before cold weather sets in, at a cost of \$750,000. This is twice the usual amount spent in the past.

Filling with dressed granite blocks the space between tracks.

Improvement of various carhouses and repainting of cars at the rate of two a-day. All the 1445 cars of the company will be refurbished. Coke will be used for heating this winter, and 5000 tons have been ordered.

Strike in Des Moines

The city of Des Moines, Ia., on Aug. 18 had been without electric railway service for six days. Employees of the Des Moines City Railway went out on strike on Aug. 13 on account of dissatisfaction over the ruling of Judge Wade of the Federal Court, on Aug. 5, which provided for temporary relief in the wage dispute between the company and the men. Judge Wade's ruling failed to take into account the claims of the men for retroactive pay. The men claimed that they were entitled to increased pay from March 1.

On Aug. 18, upon application of the city of Des Moines, Judge Wade ordered the issuance of receivers' certificates to cover the \$100,000 which the men claim is due them.

Immediately after the issuance of the order Emil G. Schmidt, president of the Des Moines City Railway, was served with a notice by the employees that they would not return to work until the money for the certificates was deposited in the bank.

While jitneys partly relieved conditions resulting from the strike, private automobiles and trucks proved the real solution.

Louisville Men Strike

A general strike of the employees of the Louisville (Ky.) Railway started at midnight on Aug. 19 with about 1300 men out. About twenty cars were running the first day. There were mild disorders, resulting in two arrests, up to noon. Patrolmen rode on the front and rear platforms of all cars run. Such cars as were run carried very few passengers.

The matters not agreed upon were apparently of small moment, and the indications on Aug. 19 were that the strike will not be of long duration.

Increase in Wages in Baltimore

On Aug. 16 the wages of the trainmen and other employees of the United Railways & Electric Company, Baltimore, Md., were increased approximately 10 per cent. In the case of motor-men and conductors the rates in cents per hour were changed as follows:

	Previous Pay Per Hour	New Rate Per Hour
First three months....	41	45
Next nine months....	43	48
Thereafter	45	50

With the increase in wages of platform men the minimum monthly wage was raised to \$90. It had previously been \$75. The minimum is guaranteed to every car man who reports daily whether or not he has a run.

In the case of other labor employed by the company the increase is a flat 10 per cent.

The increases were ordered after a conference on Aug. 13 between a sub-committee of the United Railways Association and President C. D. Emmons.

In discussing the matter Mr. Emmons said:

We had expected to take up the question of wages with our men at the conclusion of the rate case, but on request of the committee from the association we felt that the question should be settled immediately and the amount of money be included in our figures before the commission.

I appreciate the way in which our men have conducted the negotiations. It was very gratifying to me to know the kind of men with whom I will have to deal in Baltimore.

The increase in wages, which will mean an additional expense of about \$1,000,000 a year, caused a realignment of the company's plans for increased carfare, necessitating annual revenue to cover this large increase in the payroll.

A significant point brought out at the fare hearing before the Public Service Commission, on Aug. 18, was that the people's counsel would concede that the United Railways was entitled to a higher rate of fare than the present 6 cents. The question is how much higher the commission will be willing to fix the rate. The original petition of the company under which the present hearing is being held was for a 7-cent fare with four tickets for 25 cents. Even before the increase in wages it was seen by the company's representatives that this rate would not suffice to cover the augmented expenses of the railway. The petition has not been amended, however, but the company's attorneys have indicated that they may ask for as high a rate as 8 cents.

Strike Again Ties Up Muskogee Lines

Street-car service in Muskogee, Okla., which was resumed on July 17 following a strike which began on May 30, was again interrupted when the carmen walked out a second time on Aug. 1. Failure of the company to stand by the terms of the recent arbitration award granting the men seniority rights, was given as the cause of the second strike. Company officials declare that the terms of the contract have been fulfilled.

News Notes

Convention of Amalgamated Association.—The sixteenth convention of the Amalgamated Association of Street and Electric Railway Employees has been called for Sept. 8 in Chicago, Ill. The meeting will be held in the Ashland Boulevard Auditorium. The headquarters of the association will be at the Briggs House, corner Randolph and Wells Streets.

A Railway Hires a Humorist.—Edgar A. Guest, Detroit, Mich., who has a humorous column on the editorial page of the *Free Press* daily, is contributing a page of jokes every week to the *Service Spotlight*, the official publication of the International Railway, Buffalo, N. Y. The *Service Spotlight* is placed in the "Take One" boxes of the International Railway's cars every Monday morning.

Cripple Creek Short Line to Be Electrified.—Announcement by the Cripple Creek Short Line, which operates between Colorado Springs and the gold mining camps, is to the effect that the road will be electrified, construction to begin in September. Electric power will be purchased, according to the announcement, from the Arkansas Valley Railway, Light & Power Company, and another central station company.

Burlington Employees on Strike.—On Aug. 8, the employees of the Burlington (Vt.) Traction Company went on strike. The men seek a wage schedule of 50 cents an hour for an eight-hour day, with time and a half for overtime. They also demand the reinstatement of some of their number who were discharged recently. The company in a statement on Aug. 10 said that motormen and conductors had been receiving from \$18 to \$23 a week, according to length of service, and were liberally paid for overtime. The statement added that the company was unable to meet the demands without increasing its present 5-cent fare.

Arbitration Accepted by Memphis Men.—Agreement of officials of the union and of the Memphis (Tenn.) Street Railway that an arbitration board should settle demand for increased wages was ratified on the afternoon of Aug. 17 by the men. The arbitration board will consist of three members. The union and the railway each will name a man and these two will select the third member. The demand of the union members was for 75 cents an hour flat. At present the men are paid 36 cents to 40 cents.

Suburban Employees Demand More.—The employees of the New Jersey & Pennsylvania Traction Company, Tren-

ton, N. J., held a meeting recently and decided to go on strike if an additional wage increase was not granted. A three-year contract between the company and the men expired on July 21. This contract called for a closed shop, but at its expiration the company refused to grant a wage scale of 60 cents an hour, saying that the financial condition of the company would not permit it to grant another increase.

Chicago Suburban Line Tied Up.—On Aug. 16 the trainmen of the Hammond, Whiting & East Chicago Railway, Chicago, Ill., went on strike because the company had refused to meet their wage demands. This company has an operating agreement with the Chicago Surface Lines for use of the city tracks, and the employees asked for the Chicago wage scale. The management asked for a 7-cent fare to help meet this demand. The authorities in the three cities refused the petition and the tie-up was the result. It was reported that the city of Hammond, Ind., would ask for a receiver to operate the road.

No Strike at St. Joseph, Mo.—Prospects of a strike of trainmen of the St. Joseph Railway, Light, Heat & Power Company, St. Joseph, Mo., have been averted by the decision of the men to abide by their contract with the company which provides that no strike shall be called on account of a wage misunderstanding until the matter has been laid before a board of arbitration. The employees are negotiating with the company for an increase of 10 cents an hour in pay. The company has asked the men to wait until the Public Service Commission of Missouri has disposed of its petition for an 8-cent fare.

New Wage Scale in Clarksburg.—The new wage scale of local union employees of the Monongahela Valley Traction Company was signed at Clarksburg, W. Va., on Aug. 14. By the new agreement the employees are granted substantial wage increases based on the length of service with the company. The new working conditions call for a closed shop. The new wage scale is as follows: For the first six months on city lines, 40 cents an hour, on interurbans, 40 cents an hour; second six months, city, 42 cents; interurban, 42; third six months, city, 43, interurban, 44; fourth six months, city, 45; interurban, 46; fifth six months, city, 47; interurban, 48; sixth six months, and thereafter, city 49, and interurban 50 cents an hour.

M. O. Theory and Practice Differ.—In granting the Third Avenue Railway, New York, N. Y., permission to abandon operation of three of its subsidiaries which were not paying expenses, Public Service Commissioner Lewis Nixon wrote to Mayor Hylan, telling him of the situation of the lines, and informing him that if the city desired to take them over, the necessary hearings before the commission would be held. Mayor Hylan is an avowed advocate of municipal ownership, but he replied to the commissioner in part as

follows: "From their statement to you as to their present condition, it would seem more proper that they (the railroads) take their wares to people who deal in second-handed railroad scrap, who are commonly called junk dealers."

A Railway Offered as a Present.—The United Railways, St. Louis, Mo., is being asked by the Memorial Park Association, which controls Memorial Park Cemetery at Melrose and Lucas and Hunt Roads, St. Louis County, to accept a car line as a present. The United Railways now runs its St. Peter's line to within three-quarters of a mile of the cemetery gate and the association has proposed that Receiver Rolla Wells of the United Railways extend the St. Peter's line to the cemetery gate at the association's expense. The extension would cost approximately \$10,000. Receiver Wells is also being petitioned by a committee, appointed by the citizens of West Walnut Manor, St. Louis County, to extend the Lee Avenue line through Walnut Park with its western terminus in West Walnut Manor.

Franchise Renewal Up in Belleville.—Mayor P. K. Johnson of Belleville, Ill., called a special meeting of the City Council on Aug. 14 to discuss the matter of a new franchise for the East St. Louis & Suburban Railway. The company has as yet made no move for a renewal of its franchise, although its present grant expires on Sept. 1 for the line within the old city limits of Belleville. The franchise for the suburban line running between East St. Louis and Belleville was granted in 1899 by the St. Clair County Board of Supervisors for a period of fifty years. Although various civic bodies in discussing the matter of a renewal of franchise, were insistent upon gaining a 5-cent fare to Edgemont, that matter has since been dropped and an extension of service to outlying parts of the city will probably be all the city will ask as a condition for the renewal.

Road Offered to City.—W. O. Wood, vice-president and general manager of the Long Island Electric Railway, which operates from Jamaica across the meadows to Far Rockaway, Long Island, has informed Deputy Public Service Commissioner Alfred M. Barrett, of the First District, that he is willing to recommend that the road be turned over to the city of New York to be operated municipally upon the basis of payment by the city of only the appraised value of the road. The line, which operates for a 10-cent fare, is nearing bankruptcy, according to Manager Wood. The commission has for some time been investigating the affairs of the road with a view to meeting complaints as to its service. Manager Wood testified before Commissioner Barrett that the road for a period of some years has not earned its operating expenses and that the deficits from operation have been made up by contributions from the owners, namely, the Interborough Rapid Transit Company, and interests connected with the Long Island Railroad.

Financial and Corporate

Interurban in Receivership

**Aurora, Elgin & Chicago Railroad
Placed in Hands of J. K. Choate
on Creditor's Petition**

An involuntary petition in bankruptcy was filed on Aug. 9, against the Aurora, Elgin & Chicago Railroad, Wheaton, Ill., by attorneys representing the General Electric Company. In the petition, to which brief mention was made in the *ELECTRIC RAILWAY JOURNAL* for Aug. 16, it is charged the road has an authorized capital stock of \$6,200,000 and is indebted to the company for \$3,215. The road is alleged to have a total outstanding secured and unsecured indebtedness of about \$11,000,000.

RECEIVER IN COMPLETE CHARGE

Judge Evan A. Evans of the Federal District Court issued an order appointing Joseph K. Choate, New York, as receiver. Mr. Choate is to have power to take complete charge of the road, operate it, and take whatever steps he deems advisable to produce satisfactory results.

Mr. Choate has announced he will retain E. C. Faber, former manager of the company, as his representative and general manager. B. P. Alschuler, Aurora, will act as counsel for Mr. Choate. According to Judge Evans' order the receiver also has power to employ M. B. & H. H. Johnson as attorneys.

The bankruptcy petition, filed by Attorneys George B. McKeekin and Dwight S. Bopp, states the railway was organized on March 20, 1901, in Illinois. Its principal office, the petition goes on, is at Aurora, and the lines traverse Cook, Du Page and Kendall Counties.

On April 1, 1901, the petition states, the road executed and delivered its so-called first trust deed to the American Trust & Savings Bank, Chicago, securing \$3,000,000, par value, first mortgage bonds, of which there are now outstanding \$2,589,000, par value, secured by a lien on part of the roadbed and equipment. The total of first mortgage bonds outstanding, the petition states, amounts to \$1,546,000, likewise secured by a lien.

\$8,045,000 OF OUTSTANDING BONDS

The petition states on July 1, 1910, the road executed and delivered to the Northern Trust Company a so-called trust deed securing an authorized issue of first and refunding mortgage bonds amounting to \$15,000,000, par value.

The petition names the principal bond and note indebtedness of the road as \$8,045,000. The amount said to be due the holders of first and refunding mortgage bonds is set at \$76,975, which the road, the petitioners say, has been unable to pay.

Furthermore, the petitioners assert, there is no prospect that the road can meet its obligations, its buying capacity has been exhausted, and it now faces financial destruction.

Grafton Creditors Meet

**Committee Appointed to Consider Offer
of Purchase from Edison Electric
& Gas Company**

Another meeting of the creditors of the Grafton Light & Power Company and of the Grafton (W. Va.) Traction Company, bankrupt corporations, was held on July 29 at Grafton after two former postponements taken at the instance of the creditors for the purpose of considering propositions made by New York capitalists for the purchase of the two plants at private sale, before taking an order for public sale thereof. The meeting was addressed at length by John T. McGraw in person on behalf of the two companies. He recounted a proposition to buy the plants made by a new company already organized and incorporated, which had acquired extensive holdings of gas and electric properties in West Virginia and Maryland, chief among which was that of the Western Maryland Gas & Electric Company.

Briefly stated, the proposition is this: The new company, which is known as the Edison Electric & Gas Company, proposes to pay off the indebtedness existing against the two bankrupt concerns, the Grafton Light & Power Company and the Grafton Traction Company, now amounting to about \$176,000, exclusive of the Brady claim, by paying therefor \$100,000 in cash and \$100,000 in second mortgage bonds of the new company. Then the new company further proposes to liquidate the Brady indebtedness by the payment of a like sum of \$100,000 in cash and \$100,000 in preferred stock of the new company, the Brady debt at present with interest amounting to about \$180,000.

Mr. Parry, of the law firm of Larkin & Parry, New York, which represents the Central Trust Company, New York, Barstow & Company and other bankers interested in the Edison Electric Power & Gas Company, was also present and made a brief address in which he fully corroborated the statements of both Messrs. Coniff and McGraw as to the responsibility of the new company.

The end of the matter was the appointment of a committee from among the creditors present by attorneys for the purpose of seeing the absent creditors and sounding them upon the matter of accepting these bonds in part payment of their respective debts, and reporting the outcome of their action to a future meeting of creditors.

Pittsburgh Valuation Presented -

**Some Difference of Opinion Between
Railway and City and Com-
mission Experts**

The value for rate-making purposes of the Pittsburgh (Pa.) Railways is \$48,000,000, in the opinion of the engineers who represented the city of Pittsburgh on the Pennsylvania Public Service Commission's joint valuation board, but a rate base to be just to both parties and unjust to neither should not be less than \$65,000,000 and to give weight to the cost of reproduction should range between \$65,000,000 and \$70,000,000, in the judgment of the men on the board who represent the company.

The report was filed before members of the Public Service Commission in Pittsburgh on Aug. 20. It was attended with no ceremony and there was almost no attendance at the hearing, although it is conceded in some quarters that this report may be the beginning of the end of the receivership.

The valuation proceedings were begun eighteen months ago with the intention of establishing a definite calculable basis for the computation of an equitable rate of fare. The two engineers of the company on the board estimated that the traction system will need \$18,986,000 for its operation during 1920, and that, to raise this sum, a fare of 8.45 cents is necessary. The two representatives of the city of Pittsburgh declare the railways will need only \$17,446,000 for its operation in the coming year, but to secure this they must charge a 7-cent fare. The present fare is 7½ cents when paid by ticket and 10 cents in case of cash payment.

The letter of transmittal to the Public Service Commission briefly summarizes the work of the board, and then goes on to relate the manner in which the valuations were arrived at. The value of the physical property was determined upon by seven different methods. They are as follows:

Basis No. 1—Historical cost as determined upon from the records, with scrutiny of engineers and accountants, representing actual investment in physical property placed in the service of the public, \$59,069,392.

Basis No. 2—Estimated costs of reproduction new at prices ruling when each part of the existing property was constructed, and under original conditions of construction, \$49,324,791.

Basis No. 3A—Estimated cost of reproduction new at average prices of the period 1906 to 1915 inclusive, and under original conditions of construction, \$56,148,398.

Basis No. 3B—Estimated cost of reproduction new at prices indicated for 1918 by the trend of prices for twenty years previous to 1916, and under original conditions of construction, \$60,832,200.

Basis No. 3C—Estimated cost of reproduction new at average prices in the period 1914-1918, inclusive, and under original conditions of construction \$73,560,300.

Basis No. 3D—Estimated cost of reproduction new at the estimated average prices for the period from 1918 to 1922, inclusive, and under the original conditions of construction, \$84,191,300.

Basis No. 4—Estimated cost of reproduction new at prices and under the conditions ruling at the date of valuation, viz., April 1, 1918, \$102,842,274.

No allowances were made by the board for franchise values in excess of

cost, nor for earning capacity, nor for terminal facilities, nor for bridge rights in excess of cost, nor for the special value of the charter, which is one of seven said to be the broadest of the kind known. The company placed a substantial value on this charter, but the board denied it. It was on the question of whether "other elements of value," besides the actual physical valuation of the properties, should go into the total, that the valuation board split, the company's engineers opposing the stand taken by the city's representatives on "development values," "going concern values" and similar items.

\$14,086,000 REQUIRED A YEAR

All the engineers agreed that the physical operation of the system required \$14,086,000 next year. To the capital invested the city engineers would allow a return of \$3,360,000, making the total requisite revenue \$17,446,000. To capital the company engineers credited a return of \$4,900,000 a year, thus making their total \$18,986,000.

The city's engineers recommended a zoning system of fares, presumably based on that recently projected for trial in Newark, N. J. The board also made a recommendation as follows:

NO ACCOUNT TAKEN OF RECENT WAGES

The solution of the railway problem, in our opinion, will not come with the mere setting down of fixed charges that are reasonable under all the circumstances on the amount invested. The real need, in our opinion, is for some contract arrangement between the public and the company, which would be based on the reasonable assurance of securing all necessary charges, including a return on the investment. We are absolutely convinced that a contract relationship should be established at the very earliest moment.

The report makes it plain that all its estimates were made without regard to the recent award of the National War Labor Board, which adds, according to the receiver's figures, \$1,050,000 to the company's annual expenses.

Abandonment Threatened by Long Island Line

Officials of the New York & North Shore Traction Company, operating from Flushing, Long Island, to the New York City line in Little Neck and continuing to Hicksville, Long Island, filed notice on Aug. 19 with the Public Service Commission for the First District, that it will not be able to continue operation this fall at the present fare of 5 cents. Deputy Public Service Commissioner Alfred M. Barrett agreed to hold a meeting on Aug. 23, at which time reasons for the proposed abandonment of the road will be advanced by the company's representatives.

George A. Stanley, president of the company, said on Aug. 19 that it is impossible to continue to haul passengers under existing financial conditions. He said that some patrons of the road are voluntarily paying 7 cents for a ride, but that this increase in the company's receipts does not go far in solving the problem.

The line was started in 1907. The company has 38 miles of track, 17 in the city and 21 outside the city. The company has never paid a dividend, and has only paid bond interest for four and a half years out of the twelve it has been operating. The road now owes \$13,000 in taxes and more than \$10,000 in current bills.

The efforts of the company to secure an increase in fare through the authorities of New York so far have failed. The affairs of the company have been reviewed previously in the *ELECTRIC RAILWAY JOURNAL*.

Basis of St. Louis Valuation Announced

The Public Service Commission of Missouri has replied recently to the inquiry of the Civic League of St. Louis, Mo., concerning the methods of its valuation of the property of the United Railways, on which the commission's engineers have been at work for several months. The answer to the Civic League was as follows:

All property owned by the company will be included in the appraisal, being divided into property in use and useful and not in use and not useful. The matter of discarded property has not been decided. The factors of wear and tear, inadequacy and obsolescence, will receive due consideration. Unit prices used in the appraisal are based on costs as evidenced by vouchers, contracts, and work orders and actual weighted average costs for the thirteen years ending Dec. 31, 1918. The percentage allowance to cover overhead construction costs has not yet been calculated. The commission fixes the fair present value of the property used and useful in the service after all evidence has been submitted and when finding the fair present value it makes such allowance for intangible value as the evidence warrants.

The league will announce later the use to be made of the information.

Investment Return Arbitration Soon

Hearings in the arbitration of the demand of the Cleveland (Ohio) Railway for an increase from 6 per cent to 7 per cent in the guaranteed dividends on its stock will be started during the week ended Aug. 23. The public will be admitted to the hearings, but the conferences of the arbitrators will be private. As is well known the Cleveland system is operated under the service-at-cost plan.

J. R. Nutt, president of the Citizens' Saving & Trust Company, will represent the company on the board of arbitration; W. E. Davis, city light commissioner, will represent the city, and Attorney A. A. Stearns, appointed by United States District Judge Westenhaver, will be the third member. Attorneys Harry J. Crawford and Thomas Sidlo will represent the company, while Alfred Clum, of the city law department, will be the attorney for the city.

It is understood that some members of the Council contend that an increase in the dividend cannot be legally made without submission to a vote of the electors, and they threaten to circulate petitions for a referendum vote if the decision is in favor of the company.

Financial News Notes

Foreclosure Sale on Sept. 5.—The sale of the Lewiston, Augusta & Waterville Street Railway, Lewiston, Me., under foreclosure has been set for Sept. 5 by order of Wallace H. White, special master. As noted in the *ELECTRIC RAILWAY JOURNAL* for Aug. 9, page 301, the foreclosure proceedings were started by the Old Colony Trust Company, Boston, Mass., trustee under the mortgage securing the first and refunding bonds of the company.

Abandonment Authorized.—The International Railway, Buffalo, N. Y., has been authorized by the Public Service Commission for the Second District, to abandon part of its Gooding Street line in the city of Lockport. The company will tear up the rails on this line and reroute cars on its Lockport-Olcott interurban division over other tracks through Lockport. The company contended before the commission that operation of the line resulted in a big annual loss.

Foreclosure Sale Set for Sept. 8.—The Pennsylvania & Ohio Railway, which extends from Conneaut to Jefferson in Ashtabula County, Ohio, together with all its property of every description, franchises, rights-of-way, real estate and appurtenances, will be sold at receiver's sale, in Jefferson, Ohio, on Sept. 8. Bondholders who have not yet deposited their bonds with the bondholders' protective committee are urged to do so before Sept. 1, 1919, which is the last day bonds may be deposited. The receiver of the company is Palmer Wardman, Ashtabula, Ohio.

Electric Branch Lines Sold to Santa Fe.—Announcement was made at Porterville, Cal., on Aug. 2, of the completion of the sale by the Visalia Electric Company to the Santa Fe Railroad of certain branch lines extending south and southeast of Porterville, built to connect with the Porterville Northeastern Railway. In connection with the transfer and the reconstruction of these lines to freight traffic standard, it is announced the Santa Fe will start immediate surveys for the extension of their lines south from Porterville through a rich farming and orchard district to Ducor.

Sale Under Foreclosure Confirmed.—The recent sale at auction of the Southern Traction Company, to H. M. Mephram, St. Louis, Mo., who originally promoted the road has been approved by Federal Judge George W. English, in chamber at Danville, Ill. The sale was held in East St. Louis a few weeks ago by the master in chancery of the Federal Court and the purchase price was \$400,000. This ends litigation which began in the Federal Court in

the year 1914, at which time the road became bankrupt. It was built by the Lorimer-Gallagher Construction Company, Chicago.

Back Interest Payment to Be Made.—Holders of the 6 per cent three-year gold notes of the International Traction Company, Buffalo, N. Y., dated Aug. 1, 1917, have been notified that through the efforts of the protective committee appointed under the protective agreement dated Jan. 31, 1919, the interest on said notes which became due on Feb. 1, 1919, and Aug. 1, 1919, together with interest at the rate of 6 per cent per annum upon each of said instalments of interest from its respective due date to and including Sept. 2, 1919, will be paid on and after Sept. 2, 1919, at the office of the Bankers' Trust Company, in New York.

St. Louis Receivers Reports.—The third monthly report on the operation of the United Railways, St. Louis, Mo., since the concern went into receivership was filed on Aug. 13 in the United States District Court by Receiver Rolla Wells. It shows total receipts of \$1,892,299 against disbursements amounting to \$1,629,397. The receipts include \$16,850, paid by employees of the company on Liberty Loan subscriptions and \$538,000 realized through the sale of certificates of debt. The report covers the period between June 1 and June 30, 1919. Cash on hand on June 1 is given in the report as \$149,198 while the cash balance on June 30 aggregated \$410,100.

Plan to Reclaim Road.—The New York & Pennsylvania Traction Company, Hornell, N. Y., which has a line between Canistota, N. Y., and Shinglehouse, Pa., will start running cars again between the two points about

Nov. 1. The line has been idle since 1917. W. W. Crittenden, Hornell, has been successful in raising \$325,000 for the purchase of the property. The line is 54 miles long. Old stockholders of the company have pledged a large part of the money. The roadbed is badly washed out in places and must be rebuilt. Eight miles of single track near Whitesville, N. Y., has also been damaged. The old rolling stock will be used, according to Mr. Crittenden, who has had an option on the property for more than a year.

Electric Line to Be Sold.—On Aug. 11 Judge R. C. Patterson of the Common Pleas Court at Dayton, Ohio, ordered the sale of the electric line between Miamisburg and Germantown, controlled by the Ohio Electric Railway. The sale is for the purpose of satisfying mortgage indebtedness, according to an announcement. Judgment for \$50,000 and interest was ordered in favor of Phillip C. Swing, Cincinnati, as trustee. He is the plaintiff in the suit. Among the corporations named as defendants are the Miamisburg & Germantown Traction Company, the Cleveland Trust Company, as trustee; the Cincinnati & Dayton Traction Company and the Ohio Electric Railway. Judgment for \$2,000 was also ordered in favor of the Cleveland Trust Company on bonds secured by mortgage.

Exception Taken to Report of Special Master.—Exceptions have been filed in the United States District Court to the report of Special Master Henry Lamm, regarding the issuance and sale of receiver's certificates to take up a debt of \$2,300,000 of the United Railways, St. Louis, Mo., which is due. Those who filed were John W. Seaman, who instituted the receivership suit against the company; Elmyr A. and Robert T.

Laughlin, intervenors in the suit. They object to language of the report, in so far as it refers to a "default" on the part of the company, in not taking up bonds issued in 1904 by the St. Louis Transit Company which leased the railways in St. Louis from the United Railways. They assert that there was no consideration for the indorsement by the United Railways of the Transit Company bonds and that therefore the indorsement is void.

Protective Committee for Eastern Pennsylvania Railways' Bonds.—A protective committee of the mortgage 5 per cent bonds of the Eastern Pennsylvania Railways, Pottsville, Pa., has been organized. A circular issued by the committee says that the company is faced with the immediate necessity of largely increasing its power generating capacity but is without funds that can be used for this purpose and that it has no way of raising money at a satisfactory rate of interest. For this reason the holders of the first mortgage bonds are requested to deposit these bonds with the Central Union Trust Company, New York, N. Y., or with the Girard Trust Company, Philadelphia, Pa. Deposits must be made on or before Sept. 26. The last annual report of the company, dated June 5, showed a balance available for renewals, depreciation, amortization, etc., for 1918, of only \$1,987, against \$44,754 for 1917. It was stated that for the first four months of 1919 there has been an increase in net profits of \$48,435 or 100 per cent over the corresponding period of last year. The annual report also spoke of the increased demand for power. The protective committee consists of Edwin G. Merrill, chairman; Herbert Coppell, A. A. Jackson, Lewis A. Riley, and Thomas Newhall.

Electric Railway Monthly Earnings

ATLANTIC SHORE RAILWAY, SANFORD, ME.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., June, '19	\$14,346	\$16,687	\$2,341	\$523	†\$2,864
1m., June, '18	14,865	12,151	2,714	517	2,197

BANGOR RAILWAY & ELECTRIC COMPANY, BANGOR, ME.

1m., June, '19	\$84,769	*\$52,082	\$32,687	\$20,547	\$12,140
1m., June, '18	73,723	*43,850	29,873	19,502	10,371
12m., June, '19	980,653	*635,358	345,295	243,822	101,473
12m., June, '18	910,855	*539,500	371,355	234,007	137,348

CHATTANOOGA RAILWAY & LIGHT COMPANY, CHATTANOOGA, TENN.

1m., June, '19	\$156,597	*\$118,050	\$38,547	\$20,943	\$17,604
1m., June, '18	149,073	*120,003	29,070	22,396	6,674
12m., June, '19	1,869,400	*1,456,858	412,542	268,214	114,328
12m., June, '18	1,552,084	*1,354,217	197,867	349,333	†151,466

CITIES SERVICE COMPANY, NEW YORK, N. Y.

1m., June, '19	\$1,601,017	\$54,140	\$1,546,877	\$167,373	\$1,379,504
1m., June, '18	1,808,929	38,393	1,770,536	5,751	1,764,785
12m., June, '19	21,566,635	668,173	20,898,462	1,199,439	19,699,023
12m., June, '18	20,907,945	398,630	20,509,315	13,815	20,495,500

COMMONWEALTH POWER, RAILWAY & LIGHT COMPANY, GRAND RAPIDS, MICH.

1m., June, '19	\$1,992,372	*\$1,314,851	\$677,521	\$544,198	\$133,323
1m., June, '18	1,831,428	*1,162,616	668,812	505,784	163,028
12m., June, '19	23,904,157	*15,785,580	8,118,577	6,346,150	1,772,427
12m., June, '18	20,789,999	*13,727,411	7,062,588	5,648,168	1,414,420

CUMBERLAND COUNTY POWER & LIGHT COMPANY, PORTLAND, ME.

1m., June, '19	\$221,793	*\$156,477	\$65,316	\$56,030	\$9,286
1m., June, '18	278,214	*175,338	102,876	72,311	30,565
12m., June, '19	3,004,447	*2,110,904	893,543	767,464	126,079
12m., June, '18	3,141,634	*2,158,755	982,879	847,632	135,247

EAST ST. LOUIS & SUBURBAN COMPANY, EAST ST. LOUIS, ILL.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., June, '19	\$322,638	*\$263,082	\$59,556	\$68,844	†\$9,288
1m., June, '18	318,857	*243,468	75,389	67,915	7,474
12m., June, '19	4,370,095	*3,499,062	871,033	827,019	44,014
12m., June, '18	3,863,918	*2,810,900	1,053,018	801,618	251,400

THE NORTHERN OHIO TRACTION & LIGHT COMPANY, AKRON, OHIO

12m., June, '19	\$8,070,622	\$5,421,704	\$2,648,918	\$1,288,541	\$1,360,377
12m., June, '18	6,750,454	4,339,549	2,410,905	1,047,182	1,363,723*

PENSACOLA (FLA.) ELECTRIC COMPANY

1m., May, '19	\$45,155	*\$35,483	\$9,672	\$8,822	\$852
1m., May, '18	38,606	*25,996	\$12,610	7,088	5,520
12m., May, '19	557,504	*426,882	130,622	91,973	38,642
12m., May, '18	404,933	*249,283	155,650	82,358	73,299

PORTLAND RAILWAY, LIGHT & POWER COMPANY, PORTLAND, ORE.

1m., June, '19	\$725,633	*\$452,157	\$273,476	\$191,125	\$82,351
1m., June, '18	632,552	*\$391,558	240,994	187,746	53,248
12m., June, '19	8,279,444	*\$5,554,502	2,724,942	2,262,643	462,299
12m., June, '18	6,818,090	*\$4,181,568	2,636,522	2,155,699	480,823

SAVANNAH (GA.) ELECTRIC COMPANY

1m., May, '19	\$120,915	*\$100,255	\$20,660	\$24,927	†\$4,267
1m., May, '18	93,022	*62,857	30,165	23,439	6,726
12m., May, '19	1,278,899	*1,003,464	275,435	289,846	†14,411
12m., May, '18	1,053,943	*705,680	348,263	275,166	73,097

TAMPA (FLA.) ELECTRIC COMPANY

1m., May, '19	\$103,018	*\$64,146	\$38,872	\$4,610	\$34,262
1m., May, '18	82,798	*51,526	31,272	4,266	27,006
12m., May, '19	1,144,288	*\$677,273	467,015	52,883	414,132
12m., May, '18	998,742	*\$578,020	420,722	50,390	370,332

* Includes taxes. † Deficit. \$ In June, 1919, \$21,769; June, 1918, \$18,977; twelve months, 1919, \$557,397; twelve months, 1918, \$290,512 included for depreciation.

Traffic and Transportation

Rhode Island Plan Presented Three Propositions Filed with Commission—Three Miles for Eight Cents Favored

It was announced that the hearings would commence on Aug. 19 on the petition of the Rhode Island Company for increases in fares, to which brief reference was made in the *ELECTRIC RAILWAY JOURNAL* for Aug. 16. The petition of the company for relief presents three plans by which officials believe that the revenue may be increased sufficiently to meet the added operating expenses incurred by the wages named in the settlement of the recent strike. The plans as suggested by the company follow:

1. By contracting the present central zones to central zones having radii of 1½ miles, in Providence, Pawtucket and Woonsocket, with all other zone points remaining as at present fixed, and making the fare 6 cents instead of 5 cents for each zone, thereby securing an estimated increase of \$1,021,400 a year, and by increasing the charge for transfers from 1 cent to 2 cents, with the same transfer privileges enjoyed as at present, thereby securing an estimated increase of \$120,000 a year, or a total increase of \$1,141,400 a year.

ESTIMATED EARNINGS AND OPERATING EXPENSES OF RHODE ISLAND COMPANY

	Plan 1	Plan 2	Plan 3
Estimated earnings for year (based on six months to June 30, 1919).....	\$8,000,670	\$7,622,269	\$7,322,836
Estimated operating expenses for year (based on six months to June 30, 1919).....	\$5,495,902	\$5,495,902	\$5,495,903
Estimated taxes.....	629,023	629,023	629,022
Amount in increased payroll 48 cents to 56 cents.....	640,000	640,000	640,000
Depreciation and deferred maintenance charges.....	1,046,500	1,046,500	1,046,500
Total.....	\$7,811,425	\$7,811,425	\$7,811,425
Operating deficit.....		\$189,156	\$488,589
Operating surplus.....	\$189,243		
Relief afforded by cancellation of paving burdens and franchise taxes.....	400,000	400,000	400,000
Surplus—If paving burdens and franchise taxes are remitted*.....	\$589,243	\$210,843	
Deficit—If paving burdens and franchise taxes are remitted*.....			\$88,589

*No return on investment or interest on bonds are considered in the above tabulations.

2. By maintaining all present zone limits and making the fare 6 cents instead of 5 cents for each zone, thereby securing an estimated increase of \$643,000 a year, and by increasing the charge for transfers as in Plan 1, thereby securing an estimated increase of \$120,000 a year, or a total increase of \$763,000 a year.

3. By contracting the present central zones to central zones having radii of 1½ miles, in Providence, Pawtucket and Woonsocket, with all other zone points remaining as at present fixed, and retaining the 5-cent fare for each zone, thereby securing an estimated increase of \$344,000 a year, and by increasing the charge for transfers as in Plan 1, thereby securing an estimated increase of \$120,000 a year, or a total increase of \$464,000 a year.

The company expressed the opinion that the largest increase in revenue can be obtained under Plan 1. In discussing the various plans the receivers said:

In Plan 1 the only zone limits which would be changed are those between the central zone in each of the three cities and the first outer zone. The proposed central zones are 3 miles in diameter, giving the privilege of a ride of 3 miles for 8 cents, with the use of a transfer. The ride offered in the first outer zone is 2½ miles for 6 cents.

In Plan 2 the zone limits remain as they now are, but the fare in each zone is increased from 5 cents to 6 cents. Experience seems to warrant the expectation of an increase in revenue of 10 per cent from this 20 per cent increase. It will be noted that operation under this plan results in a deficit of more than \$189,000, unless paving charges and franchise taxes are abrogated.

In Plan 3 the central zones are contracted to diameters of 3 miles as in Plan 1 and the 5-cent fare in each zone is retained. Operation under this plan would yield a deficit of more than \$488,000 a year, and even with the remission of paving costs and franchise taxes there would still be a deficit of more than \$88,000.

With their proposed schedule of fares the receivers also filed a table of the estimated earnings, which is reproduced below.

Increased Chicago Fares Cause Little Friction

Collection of 7-cent fares on the Chicago Surface Lines and 8-cent fares on the Elevated Lines has proceeded without friction since midnight of Aug. 7. The falling off in traffic due to the higher rates was about as expected. No financial reports have been issued as yet by either company, but it is said

the increased revenues will be sufficient to meet the heavy wage burdens agreed upon in the settlement of the recent strike.

The Chicago Surface Lines management has been trying to push the sale of cash-fare tickets. Numerous agencies for the distribution of paper tickets at face value have been established in stores throughout the city, and advertisements were placed in the daily papers calling attention to the improvement in service which may be expected when a sufficient number of patrons tender the exact fare or tickets.

The city administration remains hostile to the traction companies, and numerous hints of court action have been made. The latest threat is that an attempt will be made to have the court impound the excess receipts collected since Aug. 7. Riders have been urged to retain their transfer slips as evidence of rides made at the higher rates.

Seven Cents in Tri-Cities

Decision of Illinois Commission Means Higher Rates on the Iowa Lines Also

A straight 7-cent fare was granted the Tri-City Railway, Davenport, Ia., for its Illinois lines by the Public Utilities Commission of Illinois on Aug. 7. The commission, which some time ago denied the company's petition for higher fares, announced that the 7-cent rate would be needed to take care of the increase in wages to 60 cents an hour recently given the men and referred to at length in the issue of this paper for Aug. 16, page 352. The commission's ruling requires the company to file monthly reports to show whether a still higher rate is justified.

A 5-cent fare on the Bridge line connecting Davenport and Rock Island, the 10-cent commutation ticket fares from Davenport to Rock Island and Moline including the Bridge line haul, and a special rate to employees of the United States Arsenal of \$2 a month will be allowed to stand pending adjustment of the fare question in Davenport.

A universal transfer was allowed from the Illinois lines of the Tri-City Railway to the Moline, Rock Island & Eastern Traction Company. Previous to this decision a transfer had been allowed only to East Moline. Silvis, Milan and Watertown, Ill., are now given the transfer privilege.

Children between the ages of seven and twelve years inclusive are allowed half fare. The minimum age limit before was five years. Two minor children are allowed to ride for 7 cents. Children under seven years of age accompanied by an adult may ride free.

This settlement on the Illinois lines went into effect at midnight on Aug. 8. Conductors were provided with a supply of coppers and passengers did not appear to be inconvenienced. The Davenport City Council, while pledged to put the same arrangement into effect in Iowa, has not yet formally done so. A new ordinance has been drawn up and was expected to be passed during the week ended Aug. 23.

At that time formal notice of the fare change was to be made. According to the company's franchise, notice must be given four weeks before the increased fare may be collected in Davenport. The new fare agreement in Iowa will automatically expire June 1, 1920, the date of the expiration of the men's 60-cent maximum wage scale.

No cars were running on Aug. 14 at Muscatine, Ia., the Council there having turned down an offer of the Clinton, Davenport & Muscatine Railway, affiliated with the Tri-City Railway, to run cars immediately, provided a 7-cent fare was granted and the Council repealed an ordinance passed last October providing for two-man car operation and dismissed injunction proceedings against one-man car operation now pending in the Iowa Supreme Court. Cars stopped at Muscatine on Aug. 1 when the general strike on the Tri-City Railway's lines began.

Hearing on Registers

Board of Arbitration in Boston Listens to Arguments For and Against Rooke Automatic Register

Hearings were held by an arbitration board on Aug. 5, 6, 7, 14 and 15 at the State House, Boston, on the continued use of the Rooke register on the Eastern Massachusetts Street Railway. This arbitration was part of the agreement ending the strike of June last as mentioned in the *ELECTRIC RAILWAY JOURNAL* for June 28, page 1283.

MAKE-UP OF BOARD

The Board of Arbitration consists of three members, Samuel H. Pillsbury, Boston, representing the company; James H. Vahey, Boston, representing the sixteen local Amalgamated Unions, and James L. Dougherty, Springfield, as the third member.

The conductors, in putting in their side of the case, claimed that the Rooke register was inconvenient to handle in that it took longer to collect fares than by hand with an overhead register; that it wore out their clothes; that it was inaccurate in registration; that its use made the car rider suspicious of their honesty; that it was more dangerous to use on open cars than to collect by hand, and that it was heavy to carry on a hot day and likely to slip off their belts and to fall on the car floor or underneath the car.

The company in presenting its case claimed the register to be entirely accurate. Prof. Charles E. Fuller of the Massachusetts Institute of Technology substantiated this by testifying the register was properly designed, was not unduly complex and when properly cared for and correctly operated would register coins inserted.

Wallace B. Donham, who as receiver of the system ordered the register installed, said he did so because he considered it more desirable than the overhead system.

H. F. Fritch, assistant general manager of the company, stated that 23.3 per cent of the cash collected on the cars was through the Rooke register, and that the company had in operation a maximum of about 700 machines.

COLLECTION METHODS DESCRIBED

Mr. Fritch outlined very fully the method of fare collection now in effect and stated that all closed cars are equipped with a registering fare box. These fare boxes are being used to collect the minimum fare of a passenger when boarding the car, Rooke registers being used for all inside collections of cash fares. Only Rooke registers are used on open cars. The company has in operation a maximum of about 804 cars, 145 of which are open cars.

H. K. Bennett, claim agent of the company, testified that fewer accidents had occurred on open cars during the season of 1919 than during previous years when open cars were in operation.

Homer Loring, chairman of the board of trustees, declared that under the public control act the public had a right to demand that every fare should find its way into the company's treasury, and that the Rooke register was the best guarantee that this would be the case.

J. O. Ellis, V. B. Leavitt, F. I. Hardy, J. G. Nellis, local managers and superintendents, were called in rebuttal of statements made by conductors, when their side of the case was presented, that the register was inaccurate. Each cited incidents to show that the conductors were mistaken in their claims, for in practically all cases it was proved that the trouble was due to the fact that the dials had not been read correctly.

Maurice E. McCormick and Lewis E. Grant, Bangor, testified that Rooke registers had materially increased the revenue of the local railway at Bangor and thereby stopped the stealing of fares. R. W. Hewins, Taunton, and C. B. Pierce, New Bedford, told of the benefits received from the use of this register on their respective roads. A. E. Potter, president of the Rhode Island Company, Providence, R. I., said that his company had been using the Rooke register since 1907, and had found it entirely satisfactory and superior to the overhead method of collection. R. W. Perkins, president of the Shore Line Electric Railway, Norwich, Conn., testified that the Rooke register is more desirable than the overhead register.

The hearing was adjourned on Aug. 15 to allow opposing counsel to prepare briefs for submission to the third member, Mr. Dougherty.

Illinois Commission Increases Fares

The Public Utilities Commission of Illinois has issued the following orders: The Bloomington & Normal Railway is authorized to charge a 7-cent fare in these two cities, effective until Aug. 1, 1920.

The petition of the Aurora, Elgin & Chicago Railroad for an increase in fares is denied and the present 6-cent fares are ordered to be continued to July 1, 1920.

A rehearing is granted the East St. Louis & Suburban Railway in its petition for increased rates in Belleville and East St. Louis and for a revised zoning system.

Six-cent rates authorized some time ago for the Rockford City Traction Company and the East St. Louis Railway are continued to Oct. 31, 1919. The present rates charged by the Sterling, Dixon & Eastern Traction Company and the Central Illinois Traction Company are also continued in effect to Oct. 31.

Seven Cents Asked in Baltimore

The Public Service Commission of Maryland on Aug. 8 opened hearings on the application of the United Railways & Electric Company, Baltimore, Md., for a further increase in rates above the 6-cent fare granted last October. The company now asks a flat 7-cent fare with a ticket rate of 6½ cents or four tickets for 25 cents.

In presenting the traction company's case its counsel introduced a summary of earnings to show that at the end of 1919 earnings will be \$335,000 behind a year ago. The company has been saved from disaster, he said, only by the increased traffic over the amount estimated when the 6-cent fare was set. He said that gross receipts for six months were from \$60,000 to \$90,000 in excess of estimates, but that in spite of this fact the surplus of \$600,000 had disappeared.

As noted on page 406 of this issue, the company has recently increased the wages of trainmen and other employees. As stated there, it was seen by the company's representatives that the 7-cent rate would not suffice to cover the augmented expenses of the railway. The petition of the company has not been amended, but the company's attorneys have indicated that they may ask for a rate as high as 8 cents.

Wants More in Wheeling

J. D. Wittemore, receiver for the West Virginia Traction & Electric Company, Wheeling, W. Va., has appeared before the City Council of Wheeling and requested that body to withdraw its opposition to the establishment of a new fare rate between Wheeling and Elm Grove. He suggested for the consideration of Council the proposition to eliminate the fare zone system and establish a single fare unit system between Wheeling and Elm Grove.

The receiver's statement of the condition of the traction company led to the adoption of a motion creating a commission composed of Mayor Thomas F. Thoner, City Manager Charles O. Ephlin, Councilman Ambros F. Habig, W. T. Otto and David A. Morgan, and three citizens of Wheeling, to investigate whether Wheeling merchants favor the establishment of a single fare system between Elm Grove and that city, and to make a report to the Council. Citizens of the Out-the-Pike district will also be heard by the committee. Mayor Thoner has not yet named the citizen representatives on the committee.

Mr. Wittemore, in addressing the Council, said in part:

The application for a receiver has back of it, as one of the chief reasons, the fact that the City & Elm Grove division has had to meet tremendous increases in expenses without receiving a sufficient increase in revenue.

In 1917 the company petitioned the Public Service Commission for an increase in fare in the single zone between Wheeling and Elm Grove. Something like nine months elapsed between the date of filing the application and the decision.

Conferences were held with the city manager of Wheeling in an effort to bring about a reconciliation that considered the city's interest and afforded the city the best protection. Those conferences resulted

in the city absolutely opposing an increase affecting the single fare unit that enabled the company to meet the additional expense.

As a result the company revised its petition, dividing the territory between Wheeling and Elm Grove into two fare zones, and the Public Service Commission granted the two zones, but reduced the fare in the second zone for the reasons that the commission believed that the increase in revenue would be larger than the company estimated.

The year which has elapsed since that decision was granted has proved two things: First, that the company's estimate of operating expenses proved to be too low; second, that the revenue from the increased fare proved to be lower than the Public Service Commission estimated. This fact became apparent in the spring, but under the terms of the Public Service Commission's ruling we could not apply for a rehearing in less than six months from July, 1918.

Fare Increase Defeated

Residents of Columbus, Ohio, Vote Down a Plan for Six Tickets for a Quarter

The ordinance giving the Columbus Railway, Power & Light Company, Columbus, Ohio, an increase in fare from eight tickets for a quarter to six tickets for a quarter was defeated by 4525 votes at the polls on Aug. 12. After having been approved by the Council the matter was put before the voters.

According to the company only one thing remains for it to do and that is to give the Columbus people the kind of service they have chosen by vote. The first move in this direction came when the company announced on Aug. 16 that service would have to be curtailed in order to accumulate the back pay due employees from an award of the War Labor Board. The Oak Street line has been put back on its old schedule and the Leonard Avenue and West Broad Street line has been given its original schedule of eleven minutes. Regarding this the company says:

The general conditions and the special need is that the company should, after the long and patient waiting of the loyal and efficient employees for back wages, now take steps in any way reasonably possible, to make them some further restitution. Ten per cent of this back wage was paid last May and it is due that further payments on this account be made soon.

All the restrictions and curtailments now contemplated by the company are fully within its franchise requirements.

We very much hope that any or all of the restrictions in service mentioned will be considered as due to conditions beyond our control, and that car riders will consider and believe that it is the desire of the company to do at all times the best it can to serve the interests of the public.

C. L. Curtz, president of the company, made a statement the day following the vote on the franchise, in which he spoke in part as follows:

The people have decided. Our only course is to do the best we can and continue serving the public.

We had thought it so clearly to the best interests of the public that the company be given the increase in fare, but the public seems to have thought otherwise. There is no further recourse, therefore, but to go on serving the public in the best way we can, and take care of the future as it comes.

When asked in regard to the back pay due to the men, he said:

The men certainly have proved a loyal, patient group of citizens, who have given up much in order to serve the public. I had thought they would be rewarded by the public, but the public decided otherwise.

We are the servants of the public. We must obey the Council and, under the referendum, the wishes of the people.

Organizing a Railway

Eighth Avenue Officials in New York Promise Patrons Good Service

The Eighth Avenue Railroad, New York, N. Y., whose system was separated from the New York Railways on Aug. 1 by court decree, is rapidly completing its organization. All departments are housed at the company's headquarters at the corner of Eighth Avenue and Fiftieth Street. One of

Eighth Avenue Railroad Company SPECIAL

AUGUST 18, 1919.

ON AUGUST 1st, BY ORDER OF THE UNITED STATES DISTRICT COURT, THE PROPERTY OF THIS COMPANY WAS RETURNED TO ITS OWNERS FOR THEIR DIRECT OPERATION. UNTIL TODAY, AN INCREASED SERVICE HAS BEEN OPERATED AS AN EVIDENCE OF THE DESIRE OF THIS COMPANY TO MEET THE PUBLIC NEEDS FOR SUFFICIENT ACCOMMODATION.

THIS ENTIRE ORGANIZATION IS UNITED IN THE INTENTION AND EFFORT TO PROVIDE THE BEST POSSIBLE SERVICE IN REGULARITY OF HEADWAY, IMPROVEMENTS TO EQUIPMENT AS RAPIDLY AS SUCH IMPROVEMENTS CAN BE EFFECTED, AND COURTEOUS TREATMENT OF OUR PATRONS. OUR AIM IS TO RE-ESTABLISH THE OLD-TIME EXCELLENT REPUTATION OF THIS COMPANY AND ITS SERVICE. WE BESPEAK THE HEARTY CO-OPERATION OF THE CITIZENS OF ESPECIALLY THOSE SECTIONS OF THE CITY THROUGH WHICH THE RAILROAD RUNS, AND HOPE TO MERIT AS WELL AS RECEIVE THEIR INCREASING PATRONAGE.

ON AUGUST 1st, THE ORIGINAL TERMINAL OF THIS COMPANY AT CANAL STREET AND BROADWAY WAS RE-ESTABLISHED IN THE BELIEF THAT THIS IMPORTANT BUSINESS SECTION OF THE CITY WOULD THEREBY FIND AN INCREASED CONVENIENCE IN DIRECTLY REACHING THE MID-TOWN AND UPPER WEST SIDE.

THE MANAGEMENT INVITES AND WILL APPRECIATE SUGGESTIONS TO THE END THAT NO PRACTICABLE IDEAS FOR IMPROVEMENT MAY BE OVERLOOKED.

W. B. YEREAANCE,
General Manager.

ANNOUNCEMENT TO PATRONS

the first acts of the new management was to post an announcement that the operation of the property was now being conducted by the owners and to request the co-operation of the patrons.

Seattle Regulates the Auto

The new traffic ordinance for Seattle, Wash., has been passed by the City Council, signed by Mayor Ole Hanson, and will go into effect as soon as it has been published. Sections of the new law which differ widely from the old ordinance and which most vitally affect automobile owners are those relating to parking and standing machines on the downtown streets. Parking is entirely prohibited on the principal downtown streets, and machines may be left standing not more than thirty minutes. Between the hours of 4 p.m. and 6 p.m., it will be unlawful to stand a machine for any period, except for loading or unloading, on the downtown streets. Provision is made for the designation by the Board of Public Works of zones where passenger vehicles for hire and commercial machines may stand in the prohibited areas during the time necessary to transact business. These zones are to be established on petition of the interested parties, and after a hearing.

Transportation News Notes

Will Refuse Canadian Coins.—The International Railway, Buffalo, N. Y., has directed its conductors to refuse to accept Canadian currency, either silver or bills, because of the high exchange rate. The order became effective on Aug. 3.

Eleven Killed in Collision in West Virginia.—As the result of a collision between a special car of the Monongahela Valley Traction Company, Fairmont, W. Va., and a Baltimore & Ohio Railroad switch engine, near Parkersburg, W. Va., on Aug. 14, eleven persons were killed and many others were injured.

"Tramway Bulletin" Resumes Publication.—The *Tramway Bulletin*, house organ of the Denver (Col.) Tramway, has resumed publication after a suspension lasting six months. The break, which was the first one in ten years, was due to unsettled conditions. It is planned to publish the paper monthly henceforth.

Round-Trip Tickets to Be Discontinued.—The Black River Traction Company, Watertown, N. Y., under a tariff filed with the Public Service Commission for the Second District, proposed as effective on Sept. 19, will discontinue the sale of round-trip tickets between Watertown and Dexter and intermediate points.

Few Accidents on Municipal Road.—Although 59,341,253 passengers were carried by the Municipal Railway, San Francisco, Cal., during the last year, there were only ten fatal accidents, according to a report filed by J. B. Leighton, claims adjuster for the city. Claims settled as the result of all accidents during the year amounted to 0.0111 per cent of the gross revenues.

Overcrowding Reduced in St. Louis.—Overcrowding of cars in St. Louis, Mo., is being materially reduced, according to reports of operating officials of the United Railways to Receiver Rolla Wells. This is being done by a combined process of speeding up schedules, adding cars where reports show persistent overcrowding, and by increasing the number of car hours.

Referendum on Jacksonville Fares.—The City Council of Jacksonville, Fla., has voted to submit to the people the question of amending the charter of the Jacksonville Traction Company to permit an increase in the fare from 5 cents to 7 cents. The bill provides for establishment of a commission with power to lower the proposed 7-cent fare at any time it is found necessary to do so.

Public Will Pass on Increase.—Petitions for a referendum on the ordinance giving the Ashtabula (Ohio) Rapid

Transit Company a 6-cent fare have been filed and the matter will be submitted to the voters for their approval at the November election. An ordinance requiring jitney bus operators to give bond has been passed and a petition to submit this to a referendum vote is now being circulated.

Objects to Transfer Charge.—The City Council of Lakewood, suburb of Cleveland, Ohio, has directed its law department to order the Cleveland Railway to cease charging 1 cent for transfers in addition to a 5-cent fare. The Council claims that the charge is a violation of the agreement between the company and the city of Lakewood fixing the rate of fare.

Six Cents Again in Grand Rapids.—After a month's trial of a 5-cent fare, the Grand Rapids (Mich.) Railway on Aug. 1 reverted to a fare of 6 cents. The metal tokens which are used in place of tickets are sold at the rate of nineteen for \$1. The City Commission ordered the company to place the tokens on sale on its cars, following the charge that they could be procured only at drug stores.

Ottawa Company Publishes Bulletin.—The Ottawa (Ont.) Electric Railway has begun distributing a weekly bulletin, among its patrons. The purpose of the publication as announced in the first issue, that of Aug. 2, is "to foster the spirit of co-operation that is so essential in the development of an industry which, as in the case of a street railway, takes on the proportions of a public institution."

Eight Cents on Alabama Road.—The Public Service Commission of Alabama has issued an order permitting the Sheffield Company, which operates in Sheffield, Florence, and Tuscumbia, to raise fares from 5 cents to 8 cents. The company had asked for a 10-cent fare. The company's application for a revision in fare zones was denied. When tickets are purchased in books of fifty a discount of 20 per cent is made, making the ticket rate 6.4 cents.

Court Contest on San Antonio Fares.—Hearings in the fare suit of the San Antonio (Tex.) Public Utilities Corporation vs. the city of San Antonio, have been concluded before Frank H. Booth, master in equity, who will present his findings and recommendations to Judge Duval West early in September. The company, which a year ago was permitted by the court to raise the fare from 5 cents to 6 cents, now wishes to establish a 7-cent fare.

Fares and Wages Increased.—Officials of the Homestead & Mifflin Street Railway, Homestead, Pa., have announced that the motormen and conductors will be given an increase of 10 cents an hour. At present the men receive 48 cents an hour for the first three months service and 50 cents an hour thereafter. An increase in pay for shopmen has also been announced. Notices have been posted by the company that the fare will be raised on Sept. 1. At present 4 cents is charged but the new fare will be 6½ cents by

ticket and 7 cents cash. The increase granted the men is the fourth in two years.

Increase in Effect on Maynard Line.—The Concord, Maynard & Hudson Street Railway, Maynard, Mass., on Aug. 15, put into effect a substantial increase in fares, the rate being raised from 3 cents to 5 cents within each zone. A trip from Concord to Hudson now costs 50 cents as against the former fare of 42 cents. Workers may purchase 100-coupon commutation books, good only from 5 a.m. to 8 a.m., and 5 p.m. to 8 p.m. These books are sold for \$3.75, a new coupon being required in each zone.

Seven Cents Asked in Albany.—The United Traction Company, Albany, N. Y., has applied to the Public Service Commission for the Second District for permission to raise local fares from 6 cents to 7 cents, and its through zone fares from 12 cents to 14 cents. The 6-cent fare was established under authority of the commission in August, 1918, and at that time was intended as a war emergency measure only. The company declared in its petition that for the year ending June 30, 1919, there was a deficit of \$266,247.

Six-Cent Fare Asked for Gary.—The Gary (Ind.) Street Railway has petitioned the Public Service Commission of Indiana to increase fares within and between the cities of Gary, Hammond and East Chicago. The fares now being charged are 5 cents, with six tickets for a quarter for school children. The company requests an increase to a 6-cent fare with 3 cents additional for a transfer within the three cities and a fare of 8 cents in zone systems outside the city limits. If the commission does not approve the zone system, the company asks permission to charge a straight fare of 2 cents a mile or fraction thereof in the territory between the cities.

Wants Seven-Cent Fare in Olean.—Facing the prospect of having to grant a further wage increase to its carmen, who are now on strike, the Western New York & Pennsylvania Traction Company has made application to the Public Service Commission, Second District, New York, N. Y., for permission to increase its fares in Olean and Salamanca from 7 cents to 10 cents, and its interurban rate from 3½ cents to 4½ cents a mile. Present rates have been in effect since Sept. 5, 1918. Motormen and conductors are now receiving from 27 cents to 33 cents an hour as against 21 cents to 27 cents prior to the company's first application for increased fares.

Agreement on Rates at Canton, Mass.—Following the order of the Public Service Commission of Massachusetts, suspending the operation of the new rates of the Blue Hill Street Railway, Canton, which provided for 10-cent fares in three zones and which were to have become effective on Aug. 15, the officials of the company and residents in the communities served conferred with the commission on Aug. 12,

when an agreement was reached. The road will be divided into six zones, having a 5-cent fare in each zone. The zones in Milton and Stoughton will comply with suggestions made by the residents of these places, who had strongly protested the 10-cent fare. The new tariff will be allowed to go into effect upon its being filed with the commission as the result of the agreement.

Two Committees Study Kansas City Case.—Two "Committees of 100" are studying the electric railway problem in Kansas City, Mo. The original committee of 100 business men was appointed by the Chamber of Commerce at the instance of the Real Estate Board; this committee has secured data on financial matters from the company, and is holding hearings to get direct information from the company's officers. The second committee of 100 was selected by the local labor unions, after complaint had been made that the original committee did not contain representation from this element of the public. The labor committee includes several attorneys and business men as well as labor members.

Court Restrains Bus Line.—Justice Harry L. Taylor in the Supreme Court of New York, sitting at Niagara Falls, has issued an order prohibiting the Gray Bus Line from operating jitney buses between Niagara Falls and Lewiston along the lower Niagara gorge in competition with the Niagara Gorge Railway, Buffalo, N. Y. Individuals opposing the operation of the jtnneys say that although the company was authorized by the Public Service Commission for the Second District on June 6 to operate a bus line in Niagara Falls and suburbs, the permit did not include permission to operate buses between Niagara Falls and Lewiston in competition with the Niagara Gorge Railway. The Lewiston village board of trustees has granted a franchise to the bus line allowing it to operate in the village.

Fare Request of St. Louis Company.—Col. Albert T. Perkins, general manager of the United Railways, St. Louis, Mo., presented a request to the Public Service Commission of Missouri for an increase in fare immediately after the wage award, referred to elsewhere in this issue, was announced. He said that he had not fully decided whether to ask an increase from the present 6-cent fare to a definitely higher amount or to file a blanket application, asking a sufficient increase to enable the company to meet the increased wage scale. In a report recently made public Mr. Perkins stated that a fare increase of 2.48 cents would be necessary to pay the company for the full wage increase asked by the men. The company is showing a yearly deficit now at the 6-cent rate and the added financial burden will make it impossible to operate the lines without a heavy loss. Receiver Wells has petitioned the commission for immediate action on the request for increased fares.

Personal Mention

Charles A. Swift has resigned from the position of chief supervisor of the Denver (Col.) Tramway. Mr. Swift entered the employ of the company as gripman in 1886.

Albert G. Towers, chairman of the Public Service Commission of Maryland, retired from the commission on Aug. 1 to take up his new duties as president of the Title Guarantee Company, Baltimore.

C. H. Johnson, chief engineer in charge of power stations of the Columbus Railway, Power & Light Company, Columbus, Ohio, for the last two years, has resigned to take a position with the Combustion Engineering Company, New York, N. Y.

H. H. Cooper has been appointed superintendent of the Tyler Traction Company's line between Sistersville, W. Va., and Middlebourne. Mr. Cooper was formerly superintendent of the Union Traction Company, Sistersville, and was in charge of the power station. Mr. Cooper will succeed Ralph Broadwater, Sr., who resigned the superintendency of the Tyler Traction system, effective on Aug. 1, to devote his time to personal business interests.

W. C. Callaghan has been appointed manager of railways of the Monongahela Valley Traction Company, Fairmont, W. Va., succeeding S. M. Gallaher, who recently resigned. Mr. Callaghan is an experienced electric railway manager, having been connected with J. G. White & Company for the last seven years. During the war J. G. White & Company placed Mr. Callaghan in charge of the Augusta-Aiken Railway & Electric Company in Augusta, Ga., where the demands on account of the cantonment near that city were exceedingly heavy. Prior to that time he was in charge of the Shore Line Electric Railway, operating in eastern Connecticut with offices at Norwich, Conn.

Joseph K. Choate, appointed receiver of the Aurora, Elgin & Chicago Railway, Wheaton, Ill., is vice-president of The J. G. White Management Corporation, New York, N. Y. Mr. Choate is very well known to electric railway interests through his activities in the affairs of the American Electric Railway Association, and through his former connections with the Morris County Traction Company and the Otsego & Herkimer Railroad. He is a past-president of the New York State Electric Railway Association. He was graduated from the University of Colorado and began his business career as a civil engineer, later going into steam railroad work.

S. R. Dunbar, who recently resigned as purchasing agent of the Union Traction Company, Anderson, Ind., after serving in that capacity for some fifteen

years, has been retained by Albert S. Richey, electrical and consulting engineer of Worcester, Mass., to represent him in the valuation of the Memphis (Tenn.) Street Railway. Mr. Richey represents the Public Utilities Commission of Tennessee on a committee which also has representatives of the city of Memphis and the Memphis Street Railway. It is probable that Mr. Dunbar will take up expert valuation work permanently, being peculiarly qualified on account of his wide experience in operation and cost problems on electric railways.

Ralph Waldo has been appointed superintendent of equipment of the Eighth Avenue Railroad, New York, N. Y. Mr. Waldo was graduated from Middlebury College, Vermont. In 1913 he entered the employ of the Westinghouse Electric & Manufacturing Company in the traction department, devoting his attention to the Norfolk & Western Railroad, which was then undergoing electrification. In 1915 he entered the employ of the New York Railways in the truck department. He continued with that company up to the time we entered the war. He was commissioned a first lieutenant and returned to the New York Railways in the testing department and continued in that capacity until his recent appointment as superintendent of equipment of the Eighth Avenue Railroad.

William L. Lyons has been appointed chief engineer of the power station of the Trenton & Mercer County Traction Corporation, Trenton, N. J. Mr. Lyons was graduated from the Missouri Valley College and later from the Drexel Institute, Philadelphia. Returning to Missouri, he became foreman of the construction department at the plant of the Kansas City Power & Light Company. He was subsequently made superintendent of the power house and the construction department of the Philadelphia (Pa.) Electric Company. He remained with that company for five years and then resigned to become assistant electrical engineer of the Baldwin Locomotive Company's plant in Philadelphia, leaving to accept the position at Trenton.

Obituary

John B. Parsons Dead

John B. Parsons, formerly president of the Philadelphia (Pa.) Rapid Transit Company, died at his home in Atlantic City, N. J., on Aug. 16.

Mr. Parsons began his street railway career in Philadelphia in 1870 when he

entered the service of the Philadelphia City Passenger Railway, better known as the Chestnut & Walnut Street line, as a clerk. He rose rapidly and when in the latter part of 1887 Messrs. Widener, Elkins and Kemble purchased a controlling interest in the railways of the West Division of Chicago, they made Mr. Parsons such a tempting offer to take charge of the property that he accepted.

On Dec. 13, 1896, Mr. Parsons, who was then general manager of the West Side Street Railway, Chicago, was unanimously chosen as vice-president and general manager of the Union Traction Company, Philadelphia, to succeed J. R. Beetem, resigned. In September, 1898, he was elected president of the company and on the organization of the Philadelphia Rapid Transit Company, as the successor to the Union Traction Company, Mr. Parsons was placed at the head of the new company. Mr. Parsons was born on May 17, 1850, in the southern part of Delaware, at Whitesville. Mr. Parsons went to Salisbury Academy, leaving it at the age of sixteen. It was first intended that he go to Princeton University, but this plan was abandoned and he became assistant station agent at Salisbury on the Delaware Railroad. Mr. Parsons retired as president of the company in Philadelphia in 1909, saying that he had reached an age when he felt that he should be relieved of the arduous duties of president.

Col. George E. Pillsbury, who retired last year as chief engineer of the Pacific Electric Railway, Los Angeles, Cal., died at his home in Los Angeles on Aug. 5 at the age of sixty-two years. Mr. Pillsbury had suffered from a nervous breakdown, following active and long service in the capacity of chief engineer of the company. He was born in 1857 at Tewkesbury, Mass., where he attended public school. He graduated from Lawrence Academy with degree of civil engineer. He practiced his profession at Lowell, Mass., until 1880, when he accepted the position of division engineer with the Mexican Central Railroad. After several years service in Mexico, he removed to Los Angeles, where he engaged in private practice of civil engineering until 1895, when he was appointed chief engineer of the Los Angeles Electric Railway, which position he held until the Pacific Electric Railway was organized, when he became chief engineer of that system. Mr. Pillsbury continued in the capacity of chief engineer of the Pacific Electric lines until April, 1918, when he was forced to resign on account of poor health. He supervised the construction of some of the most extensive lines that the Pacific Electric Railway projected in connection with its large interurban system in southern California. In 1905 Mr. Pillsbury was appointed a member of Governor Pardee's staff as military aide, being given the rank of lieutenant-colonel, which position he held during the entire term of Governor Pardee.

Manufactures and the Markets

DISCUSSIONS OF MARKET AND TRADE CONDITIONS FOR THE MANUFACTURER,

SALESMAN AND PURCHASING AGENT

ROLLING STOCK PURCHASES

BUSINESS ANNOUNCEMENTS

Paint and Varnish Market Fair

Railway Demands Small But Needs Are Great—Good Business Looked for by First of Year

Although heavy demands in the paint, oil and varnish fields are looked for as soon as the railways gain financial relief, conditions are comparatively quiet. The extremely high prices now prevalent are mainly responsible for the small amount of work being done. Railway companies which expected to paint cars this summer have put off their work, and from present indications may do very little along these lines until late in the year.

Linseed oil which a year ago was quoted at \$1.86 a gallon is now selling at \$2.27 a gallon, an unheard of price. Turpentine, which at that time sold at 63 cents a gallon is now quoted at \$1.65 a gallon. White lead, which was then quoted at 10½ cents a pound has been increased to 13 cents. Gums, white enamel, zinc, rosins, China-wood oil, fillers, etc., have all increased considerably. Tin cans and steel drums are also up with deliveries none too good. Labor is uncertain, with a great deal depending upon its vagaries. Deliveries can be made from stock in practically all cases.

MARKET FOR BRUSHES GOOD

The demand for paint brushes greatly exceeds their supply, although it is admitted that the supply is not as great as it should be. Bristles which before the war were obtained in Russia are very difficult to obtain, with the result that the price has been forced up. Bristles from China although inferior in quality are being used extensively. A 4-in. paint brush which before the war sold at 50 cents now brings from \$1 to \$2.50, according to its quality and kind of bristles. Considerable trouble has been experienced in keeping brush-makers at work, but it is expected that deliveries in brushes will shortly become normal.

NEW EQUIPMENT ORDERS WILL HELP BUSINESS

Inasmuch as several large car orders have been placed within the last few weeks, it is known that the orders for paints and varnishes for these cars will help out materially, although in the aggregate they represent but a small volume of business. Owing to the unprecedented rise in the materials above named, prices must continue to go up unless the quality is cut down. The paint and varnish men, however, are reluctant to announce an increase in prices, and in some cases have re-

duced their margin of profit rather than send out notices of an advance at the time inquiries are received. It is believed, however, that as a result of the hearing which is now going on in Washington, some relief will be given to the railways and that a considerable amount of work will have been done by the first of the year.

Hewn Tie Shipments Slower

Wet Weather and Labor Difficulties in South Hurt Production—Slight Price Rise

Conditions in the Southern tie camps are such that shipments of hewn ties are slow and supplies are short. Recent continued wet weather has put some of them under several inches of water and greatly curtailed output. Another feature having the same effect on output is the difficulty in securing sufficient labor. Many negroes, who before the war were satisfied to work in tie camps, have, since their discharge, attempted to find work in the cities.

Some success has attended their efforts and tie production has fallen off, but it is expected that when the cooler weather comes around city jobs will tighten up and sufficient help will be available to again supply the camps. Prices on hewn ties have shown an advance of about 5 per cent.

Overhead Line Materials Higher Than Expected

The expected increase in overhead line materials has been announced as effective Aug. 11, and the railway supply men are busy checking up to find what items have been most affected. The majority of trolley clamps, fittings, ears, etc., are up from 18 to 21 per cent, although it was believed that the proposed advance would not amount to more than 10 per cent. Increased copper and labor costs are responsible for this latest advance.

Inquiries are numerous and of fair size and it is believed many orders will be placed shortly, before it becomes necessary to announce a further increase.

Crossarm Prices Advanced

An advance in price of 20 per cent was placed on crossarms on Aug. 16 by one distributor. From another source comes the word that fir crossarms have gone up 10 per cent in less than carload lots, while prices have been withdrawn on carload lots.

Sanitary Hand Strap Sales Brisk

Many Orders Being Placed on Inquiries—Prices Up Slightly—Deliveries Good

The sanitary hand strap market is growing with leaps and bounds. Orders for small quantities are being received from a considerable number of companies, and in addition many large orders are being placed. Total sales during the past month on certain types of straps are equivalent to or greater than the sales for the entire year to date. The majority of the sales have resulted on inquiries. It is expected that this is just the forerunner of a buying movement that is impending.

Demands have been quite heavy recently for the white celluloid composition straps. One railway in the Middle West recently placed an order for 7000 straps of this kind. Deliveries are good. Owing to an increase in the cost of raw materials used in making the celluloid type, an increase of 10 cents a strap has been made, although there are no advances in any of the other sanitary types.

DEMAND FOR WHITE PORCELAIN ONLY FAIR

The market for glazed white porcelain enameled straps is only fair. This is a type used by the Interborough Rapid Transit System and also by the Brooklyn Rapid Transit Company. Purchasing agents who specify this strap usually are forehanded, and hence deliveries can be made by the time the straps are needed. Porcelain enameled straps made of leather with a drawn steel tubing strap cover, which has a glazed white porcelain enamel finish, seem to be gaining popular favor on Canadian properties. In fact, it has been noted that most of the orders on this type of strap are from Canada. The demands are regular and the orders of such proportions that deliveries can be made promptly.

BAKELITE CONTINUES ACTIVE

Demand for bakelite straps continues heavy. This is a short strap made from a special composition of bakelite reinforced with steel wire and is made up in brown or red. A mid-Atlantic railway recently placed an order for 5000 of this type of strap, while a large Eastern railway has placed orders aggregating between 7000 and 8000 of these straps. Unless railway companies anticipate their demands, they will find it difficult to secure good deliveries on this strap, owing to manufacturing conditions. A considerable

number of these straps are usually carried in stock, but the demands have recently been of such a nature that those desiring prompt delivery on this strap must anticipate their demands by at least six weeks.

Buttons and Badges Becoming Active

There has been a slight increase in the volume of business on buttons and badges. On account of an increase in the price of metal, readjustments are taking place continually with the result that during the past four weeks an increase of from 10 to 25 per cent has been effected. Deliveries are from three to four weeks. One manufacturer reports several orders, one of which exceeds \$2,000.

Orders for belt change-makers are practically normal. No increase has been noted in the last few weeks and deliveries are fairly good.

Purchasing Agents to Standardize Invoices

Purchasing agents are interested in the movement initiated by their national association, through its standardization committee, to adopt standard forms for invoices, purchase orders, acknowledgments and notices of shipment.

This association, by action of the same committee, last year adopted a standard catalog size. The committee now has called a conference of individuals and representatives of associations to meet at the Bellevue-Stratford Hotel, Philadelphia, Pa., on Sept. 20, at 10 a.m., to consider the subject of standardization of forms for invoices and related documents. The standardization committee of the National Association of Purchasing Agents is composed of the following members: W. L. Chandler, chairman, Dodge Sales & Engineering Company, Mishawaka, Ind.; W. V. C. Bulkeley, Liberty Steel Products Company, New York City; H. H. Meehan, A. B. Dick Company, Chicago, Ill.; A. Lockwood, Lumen Bearing Company, Buffalo, N. Y.; F. L. Kulow, Willard Storage Battery Company, Cleveland, Ohio.

Rolling Stock

Boston & Worcester Street Railway, Boston, Mass., suffered damage to the extent of about \$5,000 when fire partly destroyed an electric freight car on its lines in Roxbury, Mass.

Fort Wayne & Northern Indiana Traction Company, Fort Wayne, Ind., has placed an order with the St. Louis Car Company for thirty-five one-man cars. These cars will weigh about 18,500 lb. and will be the same as the cars ordered from the St. Louis Car Company about a year ago. It is intended that all of this new equipment will be used in regular operation in the city of Fort Wayne.

Franchises

Ranger, Tex.—A franchise has been granted by the City Council of Ranger, to S. C. White and associates, owners of the present Ranger Light & Power Company, for an electric railway system in Ranger. The franchise covers a period of fifty years and the grantees must have the system completed and in operation within a period of twelve months. The franchise permits no higher fares than 7 cents for adults and 3½ cents for children. The city reserves the right to purchase the system five years from date at the cost of actual construction and motive power, less wear and tear and plus 10 per cent on the investment.

Track and Roadway

Calgary (Alta.) Municipal Railway.—The commissioners of the City of Calgary contemplate the extension of the Bridgeland Street car loop to serve a much larger area of that section.

Southwestern Gas & Electric Company, Texarkana, Ark.—It is reported that the Southwestern Gas & Electric Company proposes to construct 1½ miles of additional track this fall.

Macon Railway & Light Company, Macon, Ga.—The Macon Railway & Light Company is relocating its track on Napier Avenue to the center of the street. An extension will be built from Forsyth Road to Crumps Park.

Iowa Railway & Light Company, Cedar Rapids, Iowa.—The construction of an interurban line from Cedar Rapids to Tama is contemplated by the Iowa Railway & Light Company, at a cost of about \$100,000.

Eastern Massachusetts Street Railway, Boston, Mass.—Work has been begun by the Eastern Massachusetts Street Railway on the rehabilitation of its tracks on the lines leading out of Brockton. Extensive work will also be done on the Brockton and Quincy route, and the Mattapan line.

Mexican Tramways Company, Ltd., Mexico City, Mexico.—A contract has been entered into by the Department of Communications and Public Works of the Mexican government with the Mexican Tramways Company, Ltd., for the resumption of the construction of the interurban electric line which will operate between the city of Mexico and Puebla, about 130 miles. The construction of this line was begun about twelve years ago, but before much progress had been made the revolutionary activities caused a suspension of the work. Later the lines of the company were taken over by the Mexican government and subsequently turned back to their owners.

Detroit, Mich.—Plans have been prepared by the city of Detroit for the construction of a subway system in the congested section, comprising St. Woodward, Monroe, Michigan, Grand River

and Jefferson Avenues, to cost about \$6,000,000. H. H. Esselstyn, chief engineer.

Cleveland (Ohio) Railway.—Cuyahoga County Commissioners have given the Cleveland Railway authority to lay a single track on the county's side of Ridge Road, between Denison Avenue, S. W., and West Park Cemetery, a distance of about ½ mile. The city had already granted authority to build a track on its side of the road, so this will be a double track.

Ottawa (Ont.) Electric Railway.—The City Council of Ottawa has authorized the Ottawa Electric Railway to construct a loop for its St. Patrick cars on Coburg, Murray and Charlotte Streets.

Niagara, Welland & Lake Erie Railway, Welland, Ont.—It is reported that the Niagara, Welland & Lake Erie Railway will construct an extension to Parkway Heights.

Chambersburg, Greencastle & Waynesboro Street Railway, Waynesboro, Pa.—An extension will be built by the Chambersburg, Greencastle & Waynesboro Street Railway from the Pen Mar, Md., terminal to the heart of the park. The line will be carried by a subway under the tracks of the Western Maryland Railroad at Pen Mar and on up along the breast of the bluff, paralleling the Western Maryland Park siding to the observatory at the main entrance to the park inclosure. The Western Maryland now offers no objection to the plan and will grant all rights-of-way. The work of construction awaits a proposed double-tracking of the Western Maryland through the gorge from Pen Mar to Highfield, an operation that was interrupted by the war.

Bryan Central Texas Interurban Railway, Bryan, Tex.—The Bryan & Central Texas Interurban Railway will transform its motive power from electric to steam equipment. The line is about 27 miles long and connects Bryan, Stone City, Pittsbridge, Grant, Whittaker and Wilcox.

Dallas Southwestern Traction Company, Dallas, Tex.—E. P. Turner, president of the Dallas Northwestern Railway and Dallas Southwestern Traction Company, has asked the city for an extension of time until June 28, 1920, to build the companies' proposed lines. (June 14, '19.)

Eastern Texas Traction Company, Dallas, Tex.—S. B. Brooks of Greenville has purchased at sheriff's sale the physical holdings and franchise of the Eastern Texas Traction Company. Construction of this company's interurban electric railway between Dallas and Greenville, about 50 miles, was in progress at the time the war caused a suspension of the work in 1914. It is planned by Mr. Brooks to reorganize the company and complete the line. (June 1, '18.)

Marshall (Tex.) Traction Company.—Reconstruction work is being completed by the Marshall Traction Company on its East End Street car line.

New ties have been put in throughout the line, which has been otherwise repaired, at a cost of about \$50,000.

Power Houses, Shops and Buildings

Durham Light & Power Company, Durham, Cal.—The Durham Light & Power Company has applied to the Railroad Commission of California for permission to sell its property to the Pacific Gas & Electric Company.

Pacific Electric Railway, Los Angeles, Cal.—Plans have been filed by the Pacific Electric Railway for its proposed new power station at Los Angeles Harbor, to cost about \$12,000.

Sacramento (Cal.) Northern Railroad.—Work has been begun by the Sacramento Northern Railroad on the construction of a passenger and freight station at Marysville. The cost will be at about \$30,000.

Washington, Baltimore & Annapolis Railroad, Baltimore, Md.—A new freight station will be built by the Washington, Baltimore & Annapolis Railroad, in which considerable space will be leased to manufacturers.

Transit Development Company Brooklyn, N. Y.—Work has been practically completed by the Transit Development Company on the construction of the new extension to its power plant and electrical gallery on Kent Avenue near Wallabout Canal, Brooklyn, and it is expected that operation will be inaugurated at an early date.

Interborough Rapid Transit Company, New York, N. Y.—Plans have been completed by the Interborough Rapid Transit Company for the extension and improvement of the one-story car repair shop of the Manhattan Railway at 1530 Lexington Avenue, to cost about \$50,000.

Toledo Railways & Light Company, Toledo, Ohio.—The Toledo Railways & Light Company will construct a new building at Superior and Jefferson Streets, Toledo.

Allegheny Valley Street Railway, New Kensington, Pa.—Bids will be received by the Allegheny Valley Street Railway and the Waverly Oil Company, for the construction of an oil storage building and office. The structure will be 71 ft. x 81 ft., six stories, with reinforced concrete flooring and concrete foundation.

Texas Electric Railway, Dallas, Tex.—A contract has been awarded by the Texas Electric Railway for the construction of additions to its carhouse in Trinity Heights, Dallas, to the Kidd-Scruggs Company at \$25,000, and work will be begun at once.

Rutland Railway, Light & Power Company, Rutland, Vt.—Plans are being considered by the Rutland Railway, Light & Power Company for the construction of a large hydro-electric power plant at East Creek, located between the Mill Village dam and Mendon.

Professional Notes

Dantzig, Pfeiffer & Ritt, 500 West 116th Street, New York City, is the name of a firm of consulting mathematicians recently formed to handle all problems arising in industry for the solution of which the knowledge of a mathematical specialist may be necessary.

Fowle & Cravath is the title of a firm of engineers recently established in Chicago. It is composed of Frank F. Fowle, lately receiver of the Central Union Telephone Company, and James R. Cravath, consulting electrical and illuminating engineer. The firm will make a specialty of electrical illuminating and mechanical engineering and will have headquarters in the Monadnock Block, Chicago.

Trade Notes

Babcock & Wilcox Company, New York, has moved its Seattle office to the L. C. Smith Building.

Import Licenses to Italy.—The following railway materials may be imported into Italy as of Aug. 1 only under special license from the government: Steel rails and railway ties, railway rolling stock.

Fred H. Ogden, for years in the frog and switch and sales department of the Bethlehem Steel Company, has lately become connected with the International Steel Tie Company, Cleveland, Ohio, in the capacity of sales manager.

Relaxation of Spanish Embargo on Cotton Waste.—A cable from Consul Dawson, Barcelona, dated Aug. 9, 1919, states that a Spanish royal order of Aug. 5 authorizes the export of cotton waste under permit from the official cotton committee.

N. S. Braden, former sales manager, has just recently been elected vice-president of the Canadian Westinghouse Company, Ltd., Hamilton, Ont. H. M. Bostwick, assistant sales manager, has been appointed sales manager, to fill the vacancy created by Mr. Braden's promotion.

The Director of Purchase and Storage, War Department, is offering for sale under sealed proposals 2378 gal. of Galena journal oil, at San Antonio, Tex., bids for which will be opened by the surplus property officer, Zone Supply Office, San Antonio, at 10 a. m., Sept. 9, 1919.

Illinois Manufacturers' Association, Fort Dearborn Bank Building, Chicago, Ill., has issued invitations to manufacturers for a conference under the auspices of the above association in Chicago, Sept. 8 and 9. It is desired that the attendance be representative of all the elements of industry.

Allen Ramsey has joined the engineering staff of the Delta-Star Electric Company of Chicago. Previous to his acceptance of this appointment he was designing engineer for the New York &

Queens Electric Light & Power Company of New York, and prior to that an electrical engineer with Sargent & Lundy of Chicago.

James R. Kearney, who for the last fourteen years has been connected with W. N. Matthews & Brother, has just been made Western manager of the line material division of that company, with headquarters at Chicago. He will cover all of the United States west of Pittsburgh, and Canada from Winnipeg west, supervising the line-material division sales and being in charge of all salesmen traveling that territory.

Wellman-Seaver-Morgan Company, Cleveland, Ohio, manufacturers of hoisting engines, hydraulic turbines, mining and other heavy machinery, is offering a block of 7 per cent cumulative preferred stock at par. This company operates extensive plants at Cleveland and Akron and is one of the largest manufacturers in the country of hydraulic turbines.

German Porcelain Insulator Concerns Combine.—About forty German firms in the ceramic industry, it is reported in the London *Electrical Review*, have combined under the title of the Syndicate of German Electro-technical Porcelain Works for their mutual protection and their economic interest. All of these concerns, the report states, produce mainly porcelain insulators and insulating material.

L. A. Kling has resigned as superintendent of shops of the Kuhlman Car Company, Cleveland, Ohio. Mr. Kling has been connected with the Brill interests for the past fourteen and a half years. From 1905 to 1910 he filled various positions with the John Stephenson Company, Elizabeth, N. J. Then for the next year and a half, before going to Cleveland, he entered the Philadelphia offices of the Brill Company, as sales engineer.

O. M. Smart, trade commissioner of the United States Bureau of Foreign and Domestic Commerce, has just returned from an extensive investigation of the markets for the sale of American electrical goods in Italy. Mr. Smart will confer with interested firms in room 734, Custom House, New York City, between 10 and 12:30 and 2:30 and 5, daily for the next ten days. Appointments may be made either by letter or by telephoning 794.

Pittsfield G. E. Bonus.—Two thousand employees of the Pittsfield (Mass.) Works of the General Electric Company received a semi-annual bonus of 5 per cent on the earnings of the plant on July 21. The total amount distributed was between \$65,000 and \$75,000, those sharing being employees of at least five years standing. The amount distributed was slightly below that shared in January, but the number of employees participating was somewhat larger.

A. P. Saas, formerly sales manager of the Independent Lamp & Wire Company, Inc., New York City, resigned recently to go into exporting and importing business at 39 Cortlandt Street,

New York City. Mr. Saas still holds his connection as secretary-treasurer and a director of the Miniature Incandescent Lamp Corporation, Newark, N. J. A. F. Pusch, formerly of the Capital Electric Company, Denver, Col., succeeds Mr. Saas as sales manager of the Independent Lamp & Wire Company.

Duff Manufacturing Company, Pittsburgh, Pa., announces the appointment of W. C. Epstein as general superintendent of its works at Pittsburgh, Pa. Mr. Epstein until recently was in charge of the production engineering division of the Bureau of Aircraft Production at New York. Before entering the government service, he was with the American Brake Shoe & Foundry Company, Chicago, assisting the vice-president in charge of operation. Mr. Epstein is a graduate of the University of Wisconsin, class of 1913.

Schiefer Electric Company, 312 E. & B. Building, Rochester, N. Y., is the new name for Henry J. Schiefer & Company. H. J. Schiefer, Jr., writes that the new company is capitalized at \$35,000 to carry on the business of the old company, which is a selling organization only. The company represents in the State of New York in the territory west of Albany the following concerns exclusively, it states: Delta Star Electric Company, Sangamo Electric Company, G. & W. Electric Specialty Company, Maloney Electric Company, and Taylor Instrument Companies. It has also a local agency for the Western Electric Company.

Misuse of Trademarks.—The Council of National Defense announces that one of the new and extremely difficult problems which vast expansion of international trade and newer development of international advertising have brought with them is the protection of trademarks of articles or firms with international reputations in foreign countries. It is stated that already piratical use of trademarks in foreign countries as a weapon in trade competition has gone very far, especially in Latin-American countries, and that some American products have been registered by German concerns.

Milliken Brothers Manufacturing Company, Inc., Woolworth Building, New York, manufacturer of galvanized steel transmission towers, has organized the Milliken Manufacturing Syndicate, London, England, to handle all export trade, exclusive of North and South America. Offices have been established at Amberly House, Norfolk Street, Strand, with C. T. Wilkinson and F. Sumner-Smith in charge. To handle its Western trade in this country, branch offices have now been established in the Majestic Building, Chicago, while to provide for Pacific Coast business a branch is now located in the Rialto Building, San Francisco.

G. E. Sales at Rate of \$170,000,000 a Year.—During the first six months of the current year bookings by the General Electric Company, it is understood, were at the rate roughly of \$170,000,000 annually. While this, of course, is considerably less than bookings for

1918, still it must be remembered that bookings for the first quarter were considerably less than for the second quarter, and consequently that the annual rate shown by the first six months of the year may be considerably increased before the year is over. It is also understood that billings are running ahead of last year, owing to the large number of unfilled orders carried over.

Hazard Manufacturing Company of Wilkes-Barre, Pa., manufacturer of insulated wire and cable, on July 1 opened a new sales office and warehouse at 1415 Wazee Street, Denver, Col., in charge of Ernest P. Kipp, district manager. The Denver office will cover the Intermountain district, including in its territory Colorado, Wyoming, Montana, Idaho, Utah, New Mexico and the western portions of Nebraska and South Dakota. Mr. Kipp, who has had sixteen years experience in the wire industry, was captain in the United States Engineers and has received his honorable discharge. A full stock of wire rope and rubber-insulated wire is carried at Denver.

American Steam Conveyor Corporation, Chicago, announces the appointment of Thomas O. Morgan, until recently head of the service department of the New York office, to the position of sales engineer. He will handle Long Island and Connecticut territory. H. S. Valentine has been appointed sales engineer in charge of Philadelphia territory. An office has been established in the North American Building, Philadelphia. Mr. Valentine was connected with the Link-Belt Company of Philadelphia for five and one-half years, with the Brown Hoisting Machine Company and Yale & Towne Manufacturing Company for six years and with the Badenhausem Company for one year.

Norton Company Reorganization.—From July 1, 1919, the business of the Norton Company and Norton Grinding Company, Worcester, Mass., will be conducted by the Norton Company with the following board of directors: George I. Alden, chairman; Aldus C. Higgins, treasurer and general counsel; Charles L. Allen, president and general manager; George N. Jeppson, secretary and works manager; R. Sanford Riley, John Jeppson. Announcement is also made of the following appointments: Carl F. Dietz, vice-president and general sales manager; W. LaCoste Neilson, vice-president and foreign manager; Herbert Duckworth, sales manager grinding wheel division; Howard W. Dunbar, sales manager, grinding machine division.

Export Association Plans to Assist Foreign Buyers.—Arrangements have been made by the American Manufacturers' Export Association whereby introduction cards will be placed in the hands of foreign buyers about to visit this country. These cards, properly signed by representatives of the United States government abroad, banks, chambers of commerce and the representatives of the Export Association in foreign lands, will serve to accredit visit-

ing buyers to the New York office of the Export Association. Buyers seeking particular kinds of merchandise will thus be aided by the association in getting in touch with American manufacturers producing the kind of goods desired. This will result in putting foreign purchasers in direct touch with American exporters.

Chicago Pneumatic Tool Company plans moving its general offices from Chicago to New York, and toward this end is erecting an office building at 6-8 East Forty-fourth Street, New York City. The operation of the company's six American plants and twenty-six sales and service branches will be directed from this plant. There will be continued in Chicago a sales and service organization more extensive than formerly. The new building is to be ready for occupancy early in 1920, at which time the transfer will be effected. The company announces the appointment of L. C. Sprague, formerly district manager of sales at New York, as manager of Western railroad sales with headquarters at Fisher Building, Chicago, and H. G. Barbee as manager of Eastern railroad sales with headquarters at 52 Vanderbilt Avenue, New York City. Nelson B. Gatch, formerly district manager of sales at Chicago, has been appointed district manager of sales at New York, succeeding Mr. Sprague. Announcement of Mr. Gatch's successor at Chicago will be made later.

New Advertising Literature

Laclede - Christy, St. Louis, Mo.: "Mixes Brains into Fire Brick" in its August bulletin.

Breeze Manufacturing Company, Inc., Newark, N. J.: Thirty-six page book on "Flexible Metal Hose, Tubing and Accessories."

Allis-Chalmers Manufacturing Company, Milwaukee, Wis.: Booklet, "Prospectus of Apprenticeship System." Also Bulletin No. 4014 on "Perforated Metal."

General Electric Company, Schenectady, N. Y.: Index to its descriptive bulletins and sheets, and also an index to its supply parts bulletin. Both these indexes are dated July, 1919.

Wheeler Condenser & Engineering Company, Carteret, N. J.: A pamphlet entitled "What Worried Admiral Jellicoe Most." A postcard is inclosed for those who request a Tube Handbook.

Whiting Foundry Equipment Company, Harvey, Ill.: Catalog No. 145, which has for its subject railroad equipment, and covers locomotive hoists, coach hoists, frames, transfer tables and turntable tractors, as well as car-wheel foundries.

Holden & White, Inc., Chicago, Ill.: Illustrated catalog No. 20 descriptive of the new Jewel hot blast car heaters recently placed on the market by this company and described in the Aug. 9 issue of the ELECTRIC RAILWAY JOURNAL, page 290.