

# Electric Railway Journal

Consolidation of STREET RAILWAY JOURNAL and ELECTRIC RAILWAY REVIEW

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## Real Purchasing Agents Save Money

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A MAN'S job is gaged by his character, at least as much as by his title. That is why a purchasing agent may be either an order and tracer clerk or a real buyer. His job calls for something more than watching the lead pencil market and refusing perfectos from salesmen. He has duties which tend to infringe the purchasing prerogatives of every department head and consequently he must be able to show cause every time and show it diplomatically.

If he is a buyer and not a clerk he can do wonders in reducing the cost of maintenance, for, like the manager, he is interested in making the dollar go farthest regardless of departmental jealousies. To illustrate: One purchasing agent noticed that the car maintenance department was getting an extraordinary increase in wheel life. He knew that trolley wire costs more than trolley wheels in the long run. Hence he persuaded the management that a very hard wheel was the costliest after all, no matter how fine a showing it gave to the car maintenance department.

As this purchasing agent has real power, he does not wait to buy wire until the line department asks for it, but buys when the market is low. Conversely, he holds scrap copper until the market is high. Last year he played this bear and bull game so well that the net expense for new wire was almost nil.

Needless to add that, as a genuine purchasing agent, he is keen to buy on the basis of tested quality every time, and he believes that electric railways will never buy soundly as a class until the purchasing agents as a class have an association of their own to work out this and many other problems peculiar to their work.

## Hand to Mouth Purchase Policy Under Existing Market Conditions

THE wise purchasing agent, even in normal times, knows the value of advance purchases of stocks of those commodities for which there is a practically constant demand. It would seem that in the face of all the troubles now encountered in securing materials, there would be no need for calling up the subject at this time. Nevertheless, if we are to judge by a letter from a leading supply man which we quoted in our "Manufactures and the Markets" column in our issue for March 23, it will be found that there are still many purchasers who, for one reason or another, persist in a hand to mouth method of securing their supplies.

Whatever the reasons for such a policy, it appears in general to be a mistaken one, more especially in war times when labor and material shortage, freight and express delays and embargoes all tend to prevent

prompt shipment and delivery. The old saw about foresight being better than hindsight quite aptly applies to this situation.

With some materials, such as girder rails, no amount of foresight in the placing of orders seems to have stimulated the arrival of the materials into stores. In fact, we know of girder rail orders placed almost two years ago which remain unfilled.

Nevertheless the great variety of materials needed by the railways are not yet subject to such prolonged delays, and our correspondent stated that if needs were anticipated and orders placed a reasonable period in advance, the materials would generally arrive in the store-room in time to meet requirements. This would mean not only reduction in annoyance and time but often considerable monetary saving, because rush shipments generally require the manufacturer to offer exorbitant wages to workmen and to ship by express, both of which create price increases which the purchaser must pay.

We believe the manufacturers of electric railway materials are doing their utmost to co-operate with the railways in these strenuous times, and it is no more than just that the railways should do their part by endeavoring to anticipate their purchase requirements to the fullest possible extent.

## Haul Freight and Do Your Bit

THE financial tide has turned adversely for many electric railway enterprises, and the street and interurban railway managers are now compelled to abandon practices not absolutely necessary and keep on the alert for opportunities which will aid in advancing the earning power of their lines. The development of plans for handling freight in less than carload lots presents possibilities for electric lines to preserve their position and strengthen their resources. It is essential that they take advantage of the present opportunity to handle this class of business in conjunction with steam roads, thus helping to relieve the present congested condition of the freight service and at the same time add to their own income.

Many interurban roads are anxious to handle freight and express on their lines, but they have not the equipment or facilities for meeting the present congested conditions, and large increases in rolling stock or freight terminals are out of the question. A system of making freight deliveries direct to the consignee has much to commend it. Such a system would do away with much of the necessity for increased terminal sheds and would decrease the labor of handling. The best service would undoubtedly be obtained if such deliveries were handled entirely by the electric roads. With proper coöperation,



however, transfer companies could be of great assistance in relieving the congested conditions.

Electric railway systems cannot stand still, they must keep pace with the development and demands of the communities which they serve or they will be relegated to the scrap heap. The haulage of freight in less than car-load lots is a work that can be conducted by most electric railways at much less cost and with greater speed than is possible by the use of motor trucks. Still in many cities definite routes are now being established for motor trucks to operate over and to provide the necessary service for shippers. This is a proposition that should receive careful consideration and thorough investigation, and it is a patriotic duty to our nation in a time when its future safety and development depend on transportation.

### Will Automobile Competition Increase or Decrease?

**I**N THE heyday of its popularity, during the early nineties, the bicycle made big inroads into the receipts of electric railways of that time. So many people preferred to ride their wheels to work and home in the evening and took bicycle rides on holidays rather than trolley tours that the loss in patronage became a serious one for the railway owners. But the decrease in the popularity of the bicycle was almost as rapid as its rise. As a disturbing factor in electric railway affairs, it soon failed to have any material effect.

We do not anticipate so rapid a decline in the popularity of the automobile, the means of individual transportation which succeeded the bicycle. Nevertheless, present circumstances point to the advent of limiting conditions to its use.

The first of these is the condition brought about by the mere number of cars on the street. The most serious part of the congestion produced by them, however, is not from the cars in use, but those left by the owners next to the curb for hours at a time. An automobile on the street is wasteful enough of street area when it is moving. It is still more of an obstruction when "parked" by its owner while he is attending to business. Nevertheless, this is an evil with which many cities have to contend. We are glad to notice that our national capital, Washington, has just taken active steps to repress this nuisance. The direct purpose of the steps taken there is to reduce the interference by automobiles with the street cars. The latter, which are the means of transportation of the masses, have received priority of right-of-way.

The curtailment in the use of steel by the automobile manufacturers, recently ordered by the government, will cause a reduction for the present in number of cars manufactured, while the increasing demand for gasoline for war uses may cut down the consumption permitted by private cars. In such a case it is not at all unlikely that many persons will be driven again to use the cars just as they did when the bicycle fell from its high estate. An increase in the price of gasoline alone would probably not greatly decrease its consumption by pleasure cars. The cost of fuel is one of the smallest items of expense in the operation of an automobile, and if gasoline should go up even to double its present price the percentage increase in the total cost of auto-

mobile operation would be small. But the question is whether enough gasoline is being produced to supply our army and navy and yet permit the present enormous consumption by road vehicles. In such a case the government could well limit the use of both pleasure and commercial vehicles.

### Women Conductors Can Give Satisfactory Service

**S**OON after the war broke out in August, 1914, many of the British tradesmen advertised that they would conduct "business as usual." They soon learned, and the country learned, that business could not be conducted as usual in war time. To combat the enemy successfully meant a tremendous strain upon the man power of the country, and women began to take up many of the duties formerly undertaken by men, including that of acting as conductors and even as drivers on electric cars. Now the use of women for this purpose is very common throughout Great Britain, Glasgow, for instance, with 862 cars having on June 1, 1917, 1514 women conductors and 203 women drivers. Women have also been employed extensively as conductors and drivers of electric cars in Italy and France with satisfactory results.

In this country up to the present women have been employed as conductors for surface cars, to any considerable extent, certainly, only in New York and Brooklyn, but in both of those cities they have been at work for a sufficient length of time that the practice can no longer be considered an experiment. It has been accepted by the public, and there has thus been opened to women a new line of work which is considerably more remunerative and no more arduous than many others in which they have been engaged in the past.

The first question which will naturally suggest itself in connection with this matter is whether the work is one which is suitable for women. On this point there are two recent reports, given in part elsewhere in this issue. While that by Mr. Squires is frankly critical, that by Dr. Bell of the New York State Industrial Commission explains that the work is less exacting and confining than that in many other occupations open to women. This fact is confirmed by the interviews contained in the State report, which is seemingly both thorough and constructive.

A second question is as to the effect on operating practice. Naturally, it is to complicate it somewhat. It means the providing at all carhouses of two sets of rest rooms instead of one and the duplication of other facilities, or, in other words, an expense which could be avoided with only one class of train employees.

Finally it would be well to consider the argument raised in the past in cities where applications have been made for permission to use women conductors, that if the companies offered wages high enough, they could get as many men as they needed. This may be true, but there are two answers to this. The first is that the companies cannot afford continually to raise wages, and the second is that if certain work can properly be performed by women, it should be done by them and the men released for work which only men can do. The testimony in New York as well as from abroad is that the work of a conductor can be performed by women without injury to their health or morals.



## No Time for Municipal Counsel to Play to the Gallery

IT IS useless for municipal counsel to attempt to influence the judgment of regulating commissions by the introduction of prejudicial matter. As Harold L. Geisse, secretary Wisconsin Railroad Commission, recently said, "It is a method to be deplored, totally ineffective and unworthy of notice by opposing counsel."

From the commission's point of view, all of this is true. From the utility's point of view, the method is certainly deplorable, but it is not ineffective or unworthy of notice. To be sure, the intelligent part of the public, in following utility cases, is not moved by non-probative testimony brought out by shrewd city counsel. But that portion of the public which is controlled by its prejudices is profoundly stirred by mere innuendoes, unfulfilled promises of lurid disclosures and other tricks of the lawyer who tries to muddle the situation. These people should not be ignored, for some of their minds can be broadened by education. For the sake of this result, therefore, even intimations of untruths by municipal representatives should not be allowed to go unchallenged. No pitched battle with opposing counsel is either necessary or advisable; a dignified notice of misstatements or insinuations by a plain recital of facts is quite sufficient.

Sometimes, however, the commission itself is justified in raising a protest. This thought came to our mind as we recently sat through several weary hearings on the application of the Public Service Railway, Newark, N. J., for higher fares and listened to the municipal trial lawyer endeavor to create a prejudice against the company. We have no desire to attribute wrong motives to the municipal counsel, but some of his questions upon cross-examination of company officials speak for themselves.

These were his opening hints—"trailed by a company detective"; "more disclosures will follow." This was his puerile and silly question for the benefit of American Bolsheviki—will President McCarter give up some of his annual salary to meet the needed emergency revenue of \$3,500,000? This was his appeal to prejudice against corporations—is not the fact that the company wants higher revenues in spite of municipal opposition a case of "the public be damned?" This was his most contemptible insinuation—were not the recent letters of President Wilson and Secretary McAdoo, urging fair play for utilities, "promoted" by a utility committee?

Such a lack of comprehension of and attention to the fundamental issues in the Public Service case is most deplorable. Nero fiddled while Rome was burning; Van Winkle daddles and slurs while the company faces an emergency. The railway does not deserve such treatment. With a phenomenal development in munitions plants, shipyards, government depots and cantonments through New Jersey, the railway's facilities are severely taxed, to say nothing of the burdens of higher operating costs. The company must have relief in order for it properly to perform its public function. Reasonable service for the public can only be had through reasonable prosperity for the utility.

If municipal attorneys cannot do more than merely play to the gallery of the non-thinking public, they should be sternly rebuked by the presiding commission-

ers. This has been done to some extent in the Public Service case, but not sufficiently. It would be well for all regulatory bodies to bear in mind Bacon's words: "There is due to the public a civil reprehension of advocates where there appeareth cunning counsel." Commissions have been organized not only to see that the public gets what it pays for and that the public pays for what it gets, but also, as Commissioner Whitney in New York recently said, to see that the policy pursued by commissions and *other public authorities* is such as to assure at all times the development and improvement of enterprises to meet the public need of utility service. Municipalities have a right to a fair hearing in rate cases, but that gives their counsel no license to use unfair methods of presentation, harmful to the general public. With commissions as with individuals, patience sometimes ceases to be a virtue.

## Increase Mileage Production Per Car

WHEN production engineers survey conditions in a machine shop they give much thought to the methods used to bring the material to the machine—for the machine represents a big investment and demands high-speed production if it is to pay. An efficient shop will not allow a costly machine to stand idle for lack of transport devices to be used for bringing the "feeding-in" material.

To do likewise with a car, which, after all, is a tool for producing car-miles, we must take advantage of every means to accelerate the feeding-in of the passengers handled in order that the car may be filled and emptied to return for a new charge as quickly as possible. The more people it can carry away during a given period, the more efficient it will be. The so-called small car with speed-up practices and devices will carry more people in an hour than the big car without them.

First in order is the prepayment area. We know how difficult it is to provide such areas in busy cities, but there are scores of large factories where the present terminals could be converted into prepayment stations at little cost. Perhaps, in some cases the factory would be willing to rent some frontage for the purpose of accommodating its employees as well as the railway. Many a present traffic snarl would be quickly disentangled by transferring to the ground the fare-collection interval which now cuts down the mileage output of the car.

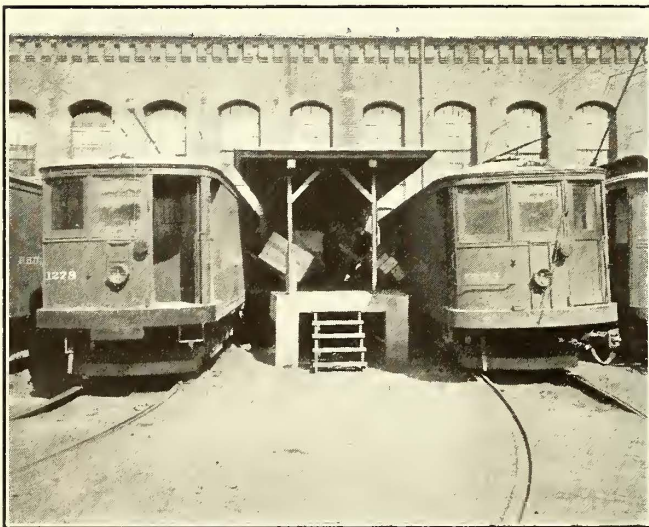
Second is the loading platform in combination with the prepayment fare collection. This costs next to nothing, yet offers the advantage of saving about one-half of the time which a car requires to get away. Third is the possibility of pay-as-you-leave operation, particularly where single-end operation is used. Finally, we come to the use of car devices such as air-operated doors and steps, compact platform control with high rates of acceleration and braking, and motor-operated fare equipments—all of which contribute toward the goal of maximum mileage output.

If electric railway men, therefore, will think of a car as a production engineer thinks of a machine tool, they will appreciate more than ever why it pays to spend an extra \$1,000 on a \$9,000 car if thereby the \$9,000 investment can be made to give 10 to 20 per cent more output, which is miles and money.

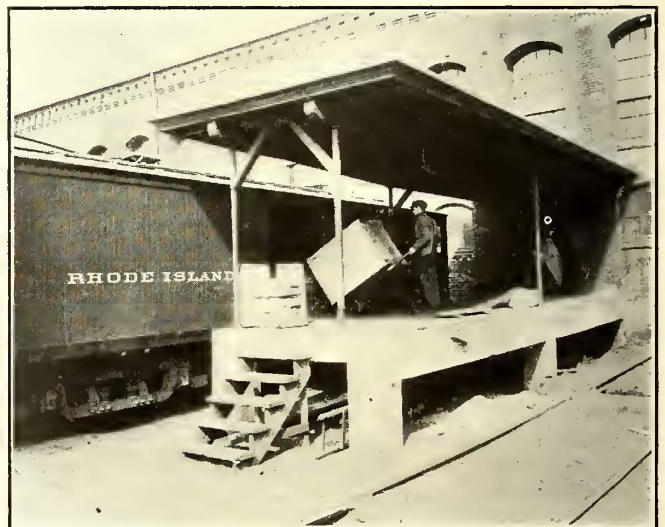




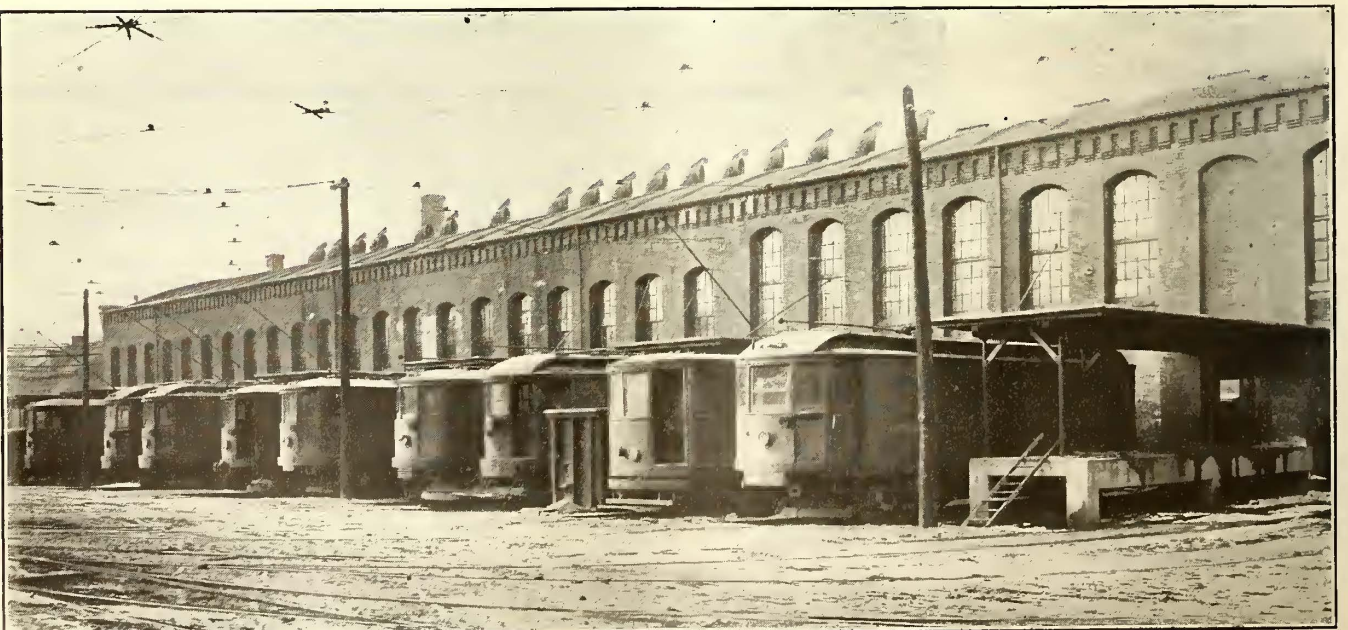
TEAM SIDE OF RHODE ISLAND COMPANY'S FREIGHT HOUSE AT PROVIDENCE



UNLOADING PACKAGE FREIGHT AT PROVIDENCE, R. I.,  
FREIGHT STATION



CONCRETE LOADING PLATFORM 30 FT. X 10 FT. AT EDDY  
STREET FREIGHT HOUSE, PROVIDENCE, R. I.



EXPRESS CARS IN LOADING AND UNLOADING BERTHS AT EDDY STREET FREIGHT HOUSE



# Rhode Island Electric Freight Business Increases 185 Per Cent in Ten Years

In This Article Attention Is Especially Directed to the Details of Less-than-Carload Freight Handling at Providence Where Cars Are Loaded and Unloaded on Stub-End Tracks

SINCE the publication of the article on the freight handling facilities and methods of the Rhode Island Company, in the issue of the ELECTRIC RAILWAY JOURNAL for March 29, 1913, page 573, the freight department of this company has greatly expanded in income and facilities. Physically the most conspicuous development has been the remodeling of the old power house on Eddy Street into an excellent freight house. While, of course, if the building had been erected new it would not have been given quite the same proportions, nevertheless it is well located and has been admirably arranged for the purpose of handling a large package freight business with minimum interference of car movement.

At present from ninety to 100 loaded cars are handled in and out of the Providence freight station daily, at times of peak load taxing the capacity of the terminal. A number of photographs are reproduced herewith to show the appearance of the station on a typical day, but not at time of peak load. The freight house is a substantial brick building, with steel and tile arched roof, about 277 ft. x 75 ft. in outside dimensions. It is divided by a brick partition into two parts of the sizes shown in the diagram on page 1005, the larger section being for incoming freight. At the street end of the building are two tiers of offices, the principal ones being on the second floor. A portion of the basement is also utilized. The principal feature of interest in the building is the row of short loading and unloading platforms projecting 30 ft. from the track side of the building. These average 10 ft. in width and are of very substantial concrete slab construction with heavy square concrete piers. They are protected from the weather by projecting roofs, supported on iron pipe columns so placed as to interfere as little as possible with the movement of trucks. The platforms are tapered so as to give the necessary

clearance for the end platforms of the cars. There are ten of the platforms, so that twenty cars can be accommodated at one time.

The freight house is almost entirely surrounded with a paved area, arranged for the purpose of encouraging the driving of teams in at one side and out at the other. It is somewhat difficult to accomplish this as the tendency is to enter and leave on the team side of the building, where, unfortunately, the area is not as great as would be desirable. By a process of education it is hoped to get the teamsters into the habit of making the complete circuit of the building.

A rather complicated special-work layout was necessary in connection with the stub-end arrangement of tracks, and this layout requires a considerable yard area. Experience with the operation of the house during the past two years, however, has convinced the management that the expenditure for trackwork has been well justified by the results, as it is possible for cars to go in and out without interference. The question of area did not enter seriously here as the building in its present position on the site was inherited by the freight department and there was ample space on one

side for the selected type of special-work layout. Since the Rhode Island Company went into the freight business nearly eighteen years ago there has been a consistent and uniform growth averaging about \$22,000 per year. Freight service is furnished over 400 miles of track through eighty community centers. The distribution of these, not to scale, is shown in one of the figures reproduced in this article. The freight-car mileage made last year was 385,000, which is approaching the figure of 1000 car-miles per mile of track. The freight income is \$870 per mile of track.

The department has now in service thirty-four regular motor express cars, three electric locomotives, six box trailers which are used for miscellaneous freight such

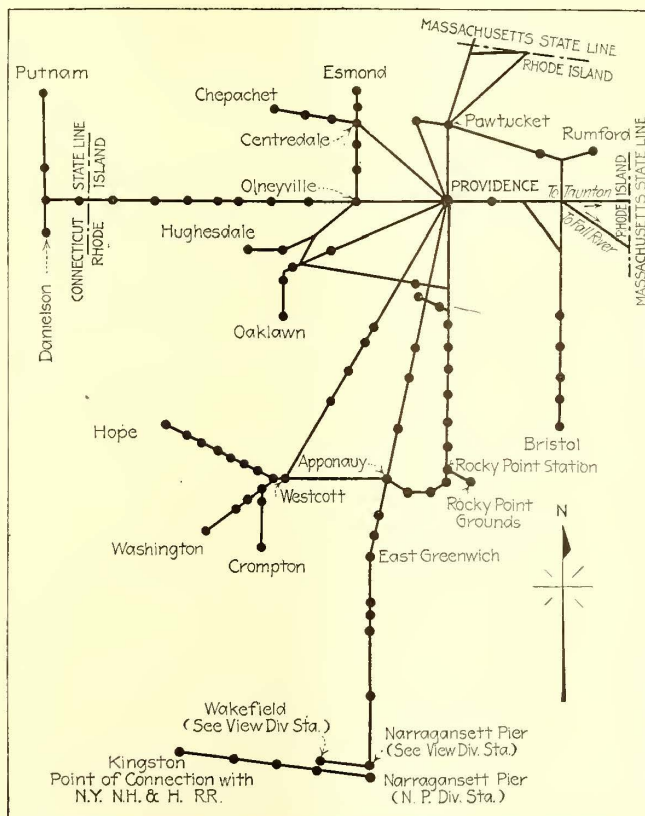


DIAGRAM OF FREIGHT CENTERS ON RHODE ISLAND COMPANY SYSTEM (NOT TO SCALE)



as lumber, nineteen small gondola cars, three wood hopper cars, five gondola coal cars and three 30-ton wood hopper coal cars (used on the Sea View division). As the coal business has fallen off considerably due to embargoes the coal cars are now being used principally for handling ashes from the power plants to fills. All of the express cars are motor cars except that a few trailers are used in outlying regions. The Rhode Island Company handles New Haven M. C. B. equipment on per diem rates, collect, but owns no M. C. B. interchange equipment itself. The company also interchanges cars with other lines, which it can do being under the jurisdiction of the Interstate Commerce Commission. Regular freight service is given between Boston and Providence, the cars coming and going by night. Two of the motor cars are furnished with M. C. B. couplers so that they can pick up steam road equipment if necessary.

The billing of freight is done in the Eddy Street freight house at Providence, where a force of thirty-eight men and boys is employed. The main billing office is shown in one of the photographs, and the dimensions



BILLING ROOM IN EDDY STREET FREIGHT HOUSE, PROVIDENCE, R. I.

of all the rooms used by the billing department are given in one of the drawings. The billing work is in charge of a chief clerk and an assistant. In the billing office are one chief bill clerk, one rate clerk, nine billing clerks, one all-night billing clerk, one voucher clerk, one filing clerk, one expense account clerk and a messenger. In the over, short and damage room are four clerks for handling cases on local lines and two for foreign lines. In the accounting room are a chief accountant, seven clerks, and a ledger clerk. In the cashier's office there are two cashiers and three collectors.

The Egrý system of billing is used for local lines and regular manifests are used on foreign lines. Both four and five-roll Egrý machines are used. The four-roll machines furnish an original, a delivery voucher, a freight bill and a station way bill. Where an extra copy for the agent is desired, the fifth roll gives him a way bill.

The term "local lines" as used above applies where there are no agents to receive or deliver the freight. In the event that the deliveries are made by the con-



INCOMING FREIGHT HOUSE OF THE RHODE ISLAND COMPANY AT PROVIDENCE



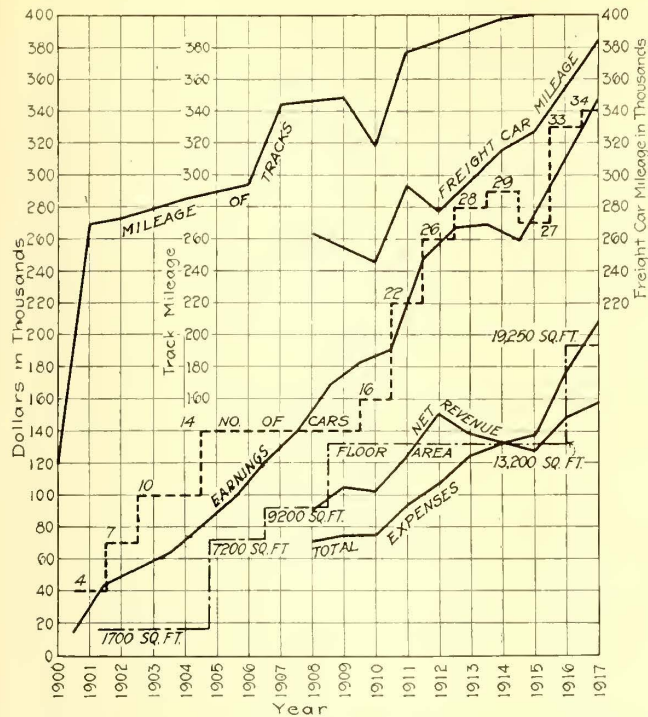


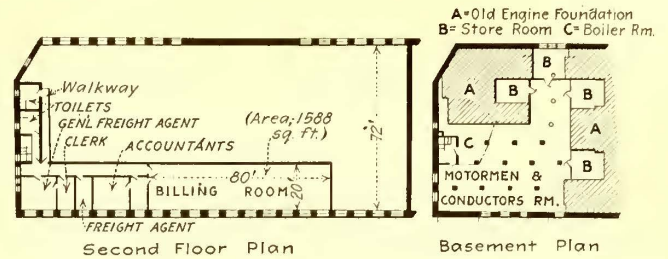
CHART OF FREIGHT DEPARTMENT OPERATING DATA, RHODE ISLAND COMPANY

ductor on the car along the line obviously this kind of service involves very careful checking to verify deliveries and to protect "shortages and overs." The Egrý system provides the necessary safeguards. The term "foreign lines" applies where agents are located to receive and deliver the freight.

Records are preserved in the billing office for three years, and are then transferred to a less accessible point where they are stored for five years more.

The delivery records are kept in pasteboard boxes, and the car tallies, way bills and all other records except correspondence are filed in binders. In filing the tallies and other records a binding machine made by the McBee Binder Company, Athens, Ohio, is used. This permits the sheet to be bound permanently and inexpensively by a clerk entirely unfamiliar with book-binding. The appearance of the bound records is very neat and they are readily accessible, as is seen in the photograph of the billing office.

A fair average month's business in the billing department on incoming freight runs about 14,000 pieces. The



SECOND FLOOR AND BASEMENT PLANS, EDDY STREET FREIGHT HOUSE

Egrý billing on the local lines averages about 13,000 way bills per month. Twenty-four thousand pieces of manifest billing is an average month's work.

The billing office works in two shifts of nine hours each. The shifts are so arranged that one clerk reports at 2 p.m. and works until 11.30. The night clerk reports at 9.15 p.m. and is relieved by an early shift at 7.15 a.m. The office is open day and night except Sundays the year round, as is the freight house also.

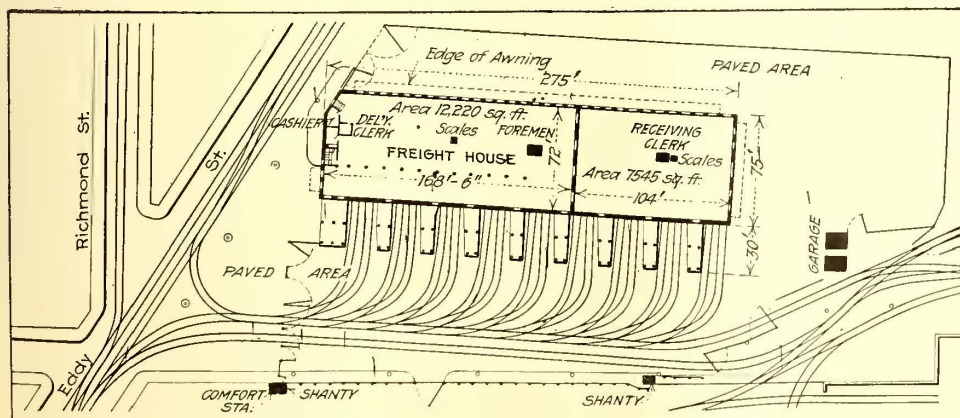
FREIGHT DEPARTMENT IS ENTHUSIASTIC OVER ITS BUSINESS

A. E. Paddock, general freight agent the Rhode Island Company, is a firm believer in the future of the freight business for electric railways. He has had prepared the accompanying chart of data summarizing the growth of this department. He finds that the superior quality of service furnished by the electric lines is greatly appreciated by shippers. No time-table is published by the freight department, but the scheduled closing times for cars for different points are published each month in the *Street Railway Guide*, the official time-table booklet of the Rhode Island Company. All of the company's cars are "peddler" cars, picking up business along the line and hence furnishing a type of service that cannot be furnished in any other way.

Rush-Hour Shoppers Warned

At a recent meeting of the tramways committee of Cardiff, Wales, Arthur Ellis, general manager, asked the press to inform women intent on shopping and not engaged in war work that unless they could manage to do their buying in reasonable hours they would be excluded from the cars altogether. It might be necessary for women, said Mr. Ellis, to produce certificates to show that their business entitled them to ride in the

cars. This was what it would come to if the cars were used for pleasure in busy hours. It was suggested that when their business was not urgent people should use the cars between 9.30 a. m. and 12.30 p. m., 3 p. m. to 4 p. m. and after 6.30 p. m. It was unanimously agreed that Mr. Ellis should have the power to curtail service whenever necessary, owing to the abnormal circumstances. Shoppers in America who travel during rush hours might well take warning.



EDDY STREET FREIGHT HOUSE, RHODE ISLAND COMPANY, PROVIDENCE, R. I., AND SURROUNDING YARDS



# Women Conductors in New York

Labor Bureau's Report on Women Conductors—State Medical Inspector Makes Thorough Examination and Finds Conditions Generally Satisfactory—Employees Interviewed and Say Work Is Preferable to That in Which They Were Formerly Engaged—Federal Report Less Favorable

TWO reports on the woman conductors in New York have recently been made public. One of these is by Benjamin M. Squires, and is published in the May number of the United States Bureau of Labor statistics. The other was submitted by Rosalie Bell, M. D., medical inspector of the New York State Industrial Commission, to Hon. James L. Gernon, first deputy commissioner. Owing to the length of the Squires report and the fact that it is available in printed form, only a brief abstract is made of the portion relating to surface car conductors. In addition several pages of the report were devoted to the employment of women as subway guards in Brooklyn, but the conditions mentioned do not vary greatly from those described under surface car operation and as readers of this paper are more concerned with the references to surface cars in the report, the portion on subway practice has not been digested.

For the same reasons in the reports of Dr. Bell the portion relative to the women subway guards have been omitted. Otherwise, the reports by Dr. Bell are printed complete, except that initials have been substituted for the names of the conductors mentioned and their addresses have been omitted, to avoid annoyance to them.

When abstracts of the Squires report appeared in the New York papers, representatives of several papers interviewed Mr. Hedley, vice-president New York Railways Company, in regard to the report.

Mr. Hedley said that the work was easier and much more congenial than many kinds of employment which women left to work for the railway company, that they received an even more rigid physical examination than the men before they were employed, that there was

every convenience for their health and comfort at the different stations, that they were able to get off one, two or three days to rest if necessary, that their pay was the same as the men received with the exception of certain bonuses for long service and that there were no complaints from the women.

He also called attention to the conclusions of the inspector of the State Industrial Commission.

The papers also carried interviews with several women conductors on both properties in which they expressed satisfaction with the work.

The photograph on page 1007 shows the new summer uniform adopted by the New York Railways. It is of khaki, like the winter uniform of the same company, but of better quality, and a skirt reaching to about 10 in. from the ground has been substituted for the former bloomers, the coat is shorter and laced leggings are used instead of the former tape puttees. The cost of this summer uniform is: Skirt and coat, \$8; cap, \$1; leggings, \$1.

At the present time the New York Railways has 467 women conductors in active service and thirty students.

## Report by Mr. Squires

A brief reference was made in the May 11 issue of this paper to the report by Benjamin M. Squires in the monthly review for May of the United States Bureau of Labor Statistics on street railway employees. The full text of the report, since available, shows that it occupies twenty-two pages of the review and contains a number of tables. It is devoted entirely to conditions in New York and Brooklyn where women are employed as electric railway conductors. The subject has been treated under four heads, though not so subdivided. These are: (1) statistical; (2) working hours and elapsed time; (3) period during day employed, and (4) sanitary and health conditions.

### STATISTICAL AND OPERATING DATA

According to the report women have been employed as conductors in the operation of surface cars in New York and Brooklyn since December, 1917, and on subway cars in Brooklyn since October, 1917. The Hudson & Manhattan Railway employs a number of women guards on its subway trains as well as women porters and ticket agents at the stations, and the Second Avenue and Queens Surface Lines have recently placed women conductors on their cars. The report is confined, however, to the practice of the New York Railways Company and the Brooklyn Rapid Transit Company.

On Feb. 15, 1918, the New York Railways Company had in its employ 452 women conductors, not including thirty-five students, or approximately 30 per cent of all conductors employed. The Brooklyn Rapid Transit Company on the same date had 138 women conductors, not including forty-one students, on its surface cars,

TABLE I.—TIME OF OCCURRENCE AND DURATION OF PERIODS IN THE DAY'S WORK OF WOMEN EMPLOYEES DURING A PERIOD OF SEVEN DAYS—NEW YORK RAILWAYS

Time of Occurrence of Waiting Period (Time Off Duty between Parts of Day's Work)	Number of Work Days, with a Waiting Period (Time Off Duty between Parts of Day's Work) of—								Total	
	Under 1 Hr.	1 and Under 2 Hrs.	2 and Under 3 Hrs.	3 and Under 4 Hrs.	4 and Under 5 Hrs.	5 and Under 6 Hrs.	6 and Under 7 Hrs.	7 and Under 8 Hrs.		8 and Under 9 Hrs.
7 a.m. and before 8 a.m....	1	1	1	1	1	1	1	1	1	3
8 a.m. and before 9 a.m....	2	12	18	38	25	1	1	8	7	111
9 a.m. and before 10 a.m....	19	43	73	56	19	3	15	29	4	261
10 a.m. and before 11 a.m....	2	22	30	6	2	6	6	3	3	77
11 a.m. and before 12 m....	4	43	44	7	1	1	1	2	1	103
12 m. and before 1 p.m....	12	84	120	26	10	1	1	1	1	253
1 p.m. and before 2 p.m....	7	102	75	24	2	1	1	1	1	210
2 p.m. and before 3 p.m....	23	90	188	37	8	1	1	1	1	346
3 p.m. and before 4 p.m....	14	196	165	44	3	1	1	1	1	422
4 p.m. and before 5 p.m....	25	155	86	8	1	1	1	1	1	275
5 p.m. and before 6 p.m....	18	50	7	4	1	1	1	1	1	80
6 p.m. and before 7 p.m....	6	25	6	1	1	1	1	1	1	38
7 p.m. and before 8 p.m....	5	10	2	1	1	1	1	1	1	17
8 p.m. and before 9 p.m....	2	3	2	1	1	1	1	1	1	7
9 p.m. and before 10 p.m....	1	1	3	1	3	1	1	1	1	8
10 p.m. and before 11 p.m....	1	1	5	2	1	1	1	1	1	9
11 p.m. and before 12 p.m....	22	16	1	1	1	1	1	1	1	38
12 p.m. and before 1 a.m....	5	13	1	1	1	1	1	1	1	18
1 a.m. and before 2 a.m....	2	1	1	1	1	1	1	1	1	4
2 a.m. and before 3 a.m....	1	1	1	2	1	1	1	1	1	3
Total.....	149	873	843	254	77	11	23	42	11	2,283



and 297 women guards, not including women employed regularly in other occupations who work a portion of their time as guards. These were 5.6 and 21.7 per cent respectively of the total number of conductors and guards employed. In addition, on its subway-elevated stations, the Brooklyn company employed 929 women ticket agents out of a total of 1002 in this occupation, and fifty women porters out of a total of 180. The use of women ticket agents is not an innovation, however, and the porters are virtually cleaners about the stations, and in neither position does the employment of women present any unusual difficulties.



Summer Uniform for Women Conductors  
New York Railways

After explaining that under the practice of both companies choice of runs goes with seniority of service, the report says that on Feb. 15, 1918, practically all of the 138 women conductors on the surface lines of the Brooklyn Rapid Transit Company were extras. Of the 297 women employed as guards and conductors on the subway lines with the same company, forty were extras. Of the 452 women conductors employed by the New York Railways Company, 119 were extras. All of the male conductors employed by the New York Railways Company had regular runs. Several tables are given to show the hours worked by women on straight runs, swing runs of two periods and swing runs with three periods during the twenty-four, with the length of time worked and the time elapsed.

On the basis of one week, on the New York Railways, 13½ per cent of the total days worked by women conductors was completed in ten hours, and 62.9 per cent required twelve hours and over. On the Brooklyn Rapid Transit Company surface lines 16.1 per cent of the total days worked by women conductors required less than ten hours and 48.5 per cent required twelve hours and over. On the subway-elevated lines in Brooklyn, 36.5 per cent of the total days worked by women

guards and conductors required less than ten hours within which to complete the day's work, and 50 per cent required twelve hours and over.

Table I, taken from the report, shows the duration and hour of occurrence of the waiting time of women employees during a period of seven days on the New York Railways Company. Similar tables were published for the Brooklyn Rapid Transit surface and subway-elevated lines.

Table II, also from the report, is a summary of the hours at which the runs began and ended on the New York Railways.

The author of the report thinks that those who advocate the employment of women as conductors have given scant consideration to irregularity of hours, to "within" time and to night work, or else they regard these as more than compensated by the comparative lightness of the work. The report considers the work not light, however, and that it involves considerable nervous strain as well as exposure to cold, damp and drafts, even on the best types of inclosed vestibule and center-door cars.

The report says "obviously a separate waiting and rest room must be provided for women employees. It must be considered too that since the strain upon women is greater than upon men in this work, opportunity for rest and relaxation must be provided in greater meas-

ure than for men. The need of adequate rest-room facilities for all women off duty becomes more apparent when it is taken into consideration that employees often live too far from the carhouses to make it practicable for them to go home between portions of the day's work. The immediate neighborhood of the carhouses is seldom inviting. Even if the waiting period comes at a convenient time or is of sufficient duration to permit women employees to shop or to go to places of amusement, it is

TABLE II.—NUMBER OF WORKDAYS OF WOMAN EMPLOYEES WHICH BEGAN AND ENDED AT EACH CLASSIFIED TIME DURING A PERIOD OF SEVEN DAYS—NEW YORK RAILWAYS

Beginning Time	Number with Ending Time—A.M.												Number with Ending Time—P.M.												Total	
	12 and before 1	1 and before 2	2 and before 3	3 and before 4	4 and before 5	5 and before 6	6 and before 7	7 and before 8	8 and before 9	9 and before 10	10 and before 11	11 and before 12	12 and before 1	1 and before 2	2 and before 3	3 and before 4	4 and before 5	5 and before 6	6 and before 7	7 and before 8	8 and before 9	9 and before 10	10 and before 11	11 and before 12		
2 and before 3 a.m.																										3
4 and before 5 a.m.																										4
5 and before 6 a.m.																										189
6 and before 7 a.m.																										609
7 and before 8 a.m.																										186
8 and before 9 a.m.																										33
9 and before 10 a.m.																										2
10 and before 11 a.m.																										15
11 and before 12 m.																										51
12 m. and before 1 p.m.																										137
1 and before 2 p.m.																										450
2 and before 3 p.m.																										263
3 and before 4 p.m.																										44
4 and before 5 p.m.																										24
5 and before 6 p.m.																										19
6 and before 7 p.m.																										18
7 and before 8 p.m.																										26
8 and before 9 p.m.																										38
9 and before 10 p.m.																										15
12 and before 1 a.m.																										2
Total.....	290	370	93	7	20	25	12	27	24	9	12	5	4	8	22	25	79	305	447	172	44	26	101	2,128		

<sup>1</sup>Work ended the morning of the following day.



necessary for them to change to street dress and again to uniform or work dress." An inspection was made of the condition of the rest rooms in each depot and the facilities at some were criticised as inadequate. The report also speaks of the importance of maintaining near the car depots clean, wholesome lunch rooms as a means of maintaining the health and efficiency of the employees, especially the women employees.

**OTHER CONDITIONS OF EMPLOYMENT**

The uniform on the New York Railways is a regulation uniform consisting of an all-wool shirt, a coat, trousers, puttees and a cap of khaki. The company furnishes these at a cost of \$5.75 to the employees. The women provide their own heavy coats and other apparel. Uniforms in Brooklyn consist of a dark skirt furnished by the employee, a cap and heavy coat, both dark blue in color, at a total cost to the employee of \$16.10.

The age limits are twenty-one to forty-five, and a large percentage of the applicants are rejected. The same wages are paid to the women as to the men for the same work. The wages on the New York Railways and the surface lines of the Brooklyn Rapid Transit Company are 27 cents per hour for the first year. These wages increase on both lines to 30 cents for the second year and then by different gradations up to the sixteenth year, when the amount is 34 cents on the New York Railways and 35 cents on the surface lines of the Brooklyn Rapid Transit Company.

In discussing the attitude of the general public toward the practice the report says: "Public sentiment is rarely manifested except when inconvenience is threatened or occasioned. To those who use the street cars the introduction of women meant the operation of a greater number of cars and consequently better transit facilities. Attracted at first by the novelty of women conductors and inclined somewhat sentimentally toward the idea of women doing their 'bit' and releasing men for service, the general public seems now to have complacently accepted the situation with little thought of the consequences that may result and with less knowledge of the conditions under which women conductors work. A woman conductor, although still an object of interest, no longer excites any considerable comment."

The attitude of the Consumers' League of New York, as expressed by its representatives, is that there is no objection to women being employed in the operation of street cars but there should be protective legislation regulating the conditions under which women work. The Lockwood bill introduced into the Legislature at the recent session and indorsed by the Women's Trade Union League, New York State Child Labor Committee, and Consumers' League limits the work to six days or forty-eight hours in any week and to eight hours in any day unless for the purpose of making a shorter work day of some one day in the week, or before 7 o'clock in the morning or after 10 o'clock in the evening of any day.

The report concluded with the statement that from the facts brought out "it must be evident to every thinking person that it is practically impossible to make the conditions of employment even tolerably endurable to women employees." It also deprecates any policy of employing women to lower wages or to keep wages from rising to meet increases in the cost of living.

**Reports by Medical Inspector of State Industrial Commission**

**REPORT ON BROOKLYN SURFACE LINES**

Feb. 27, 1918.

Mr. JAMES L. GERON, First Deputy Commissioner, State Industrial Commission.

DEAR SIR:

In accordance with your request, I have made an investigation of the complaints made by the Central Federated Union of New York and the Central Labor Union of Brooklyn and Queens regarding the employment of women on the "elevated, trolley and subways."

The New York Railways (Theodore Shonts, president), operates numerous lines of surface cars in the Borough of Manhattan. It employs women as conductors.

The Brooklyn Rapid Transit (T. S. Williams, president), operates surface and elevated railways and subway; the latter extends from Coney Island, Sea Beach, Bay Ridge, Brooklyn, to Times Square, Manhattan.

The first investigation made was that of the Brooklyn Rapid Transit, which employs about 1621 women as follows:

Ticket agents (about)	1,000	(employed on elevated and subway stations)
Conductors.....	210	(employed on surface cars)
Guards.....	324	(employed on surface cars)
Car cleaners.....	41	(employed at subway stations)
Porters.....	46	(employed at subway stations)
	<u>1,621</u>	

Their employment office is located at 40 State Street under the management of Albert Maxwell, superintendent of employment. Male applicants apply for positions during the morning hours; female applicants from 2 p. m. to 5 p. m.

**METHOD OF APPLYING FOR POSITION**

All applicants are interviewed and casually inspected by Mr. Maxwell and his assistant, Mr. Hamilton.

If the applicant desires the position of conductor, she must be at least 21 years of age and measure 5 ft. 5 in. in height. Should the applicant fill these requirements, she is requested to write her name upon a blank card and present same to the physician and submit to an examination of her sight (distance and color), hearing, and answer numerous questions regarding her present and former state of health. If after the examination the applicant is recommended, she is required to fill out an application blank, is measured and weighed and the results are duly recorded upon the application blank. (Forms of these blanks are herewith attached.)

The applicant is then requested to sit for her photograph. Two forms are obtained—full face and profile. One of each is filed at the employment office, another at the station to which the conductor is detailed.

Later, she is given a badge and puncher for which she deposits \$2, which is later refunded. She also obtains a cap and overcoat and is notified to appear at the School of Instruction, Fifty-eighth Street and Second Avenue, for instructions in her duties as conductor. (Guards are instructed at the subway station, Thirty-sixth Street and Ninth Avenue).

The school for instruction is located at Fifty-eighth



Street and Second Avenue, under the supervision of Mr. Winfield.

The instruction is theoretical and practical. A class room is fitted up with desks, blackboards, etc., and lectures are given to both men and women conductors on the methods of filling out day cards, recording the number of trips, transfers, etc. Examples in fundamental arithmetic are given to test the ability of the newly-appointed conductors.

A couple of days later the practical instruction is given. In the outer hall models of different types of cars are installed, and on these the conductors receive instructions relative to stopping car, opening and shutting doors of cars, signaling motorman, ringing up fares and transfers, etc.

The entire course requires about three days. When the conductors have given satisfaction in both departments, they are sent out on cars with experienced conductors for about four or five days. Then they return to the school, take an examination, which if passed successfully entitles them to a regular appointment. The salary begins from that date. The conductors are then detailed to one of the numerous depots.

The five car depots of the company at which women are employed are as follows: Fresh Pond, Twentieth Street and Ninth Avenue, Bergen Street and Troy Avenue, Flatbush, and Fifty-eighth Street and Second Avenue.

#### FRESH POND DEPOT

This depot is in charge of a depot master. The female conductors detailed to this depot number forty-seven fully qualified and fourteen partially qualified. They serve on the following lines: Gates Avenue, Myrtle Avenue, Union Avenue, Bushwick Avenue, Wyckoff Avenue, Richmond Hill, Williamsburg Bridge local and Metropolitan.

The rest room for the women is located in a separate building, about 30 ft. x 12 ft. It is ventilated by two windows, lighted by electricity and heated by a large base-burner stove. It contains twenty-eight metal lockers, and there are numerous hooks around the walls. It has wicker lounge, numerous chairs and a telephone connected with the office whereby the conductors are notified when to start out on their cars.

Along one side of the wall is a long table divided into about twelve compartments and lined with metal. This is called a change-making table and is used by the conductors when making up their accounts after each run.

The wash room is adjoining. Two bowls and a wash basin have been installed but are not yet ready for use. The women conductors are obliged to use temporarily the toilets on the elevated station near by. The rest room was clean, well heated and ventilated. Several conductors were at leisure and resting during their "swings."

Their uniform consists of a heavy dark blue coat, a blue woolen shirt and a cap and ordinary shoes.

I interviewed two of the conductors whose swings did not expire for several hours.

1. F. N., twenty-three years of age, formerly employed by Loose-Wiles Biscuit Company as labeller. Piece work averaged about \$12 to \$13 a week. Has been employed as conductor for about three weeks. She is tall, well developed, has a fine color and says the work is not difficult. She made her application in the manner described, received a week's

training and was appointed. She has never worked ten consecutive hours.

2. M. R., about twenty-two years of age, formerly employed by the Remington Arms Company, Bridgeport, Conn. Piece work averaged \$3.50 to \$4 per day, but work was not steady. Has been here for several weeks. Her hours are from 8 p. m. to 10 a. m. with swings between. Does not work ten hours per day. She looks fairly well and says her health has improved.

#### TWENTIETH STREET AND NINTH AVENUE DEPOT

This depot is in charge of a depot master. The female conductors detailed to this depot consist of thirty fully qualified and six partially qualified.

They serve on the following lines: Sixteenth Avenue, Vanderbilt Avenue, Union Street, Flatbush and Seventh Avenue, Seventh Avenue, Smith Street and Fifteenth Street.

The rest room is in course of construction. Conductors occupy temporary quarters in another room which is clean and comfortable. The toilet facilities are adequate. I interviewed two conductors.

1. H. M., twenty-two years of age. Formerly employed as clerk in National Suit & Cloak Company and received \$9 per week. Has been employed here for the past three weeks and claims to have gained 8 lb. She appears to be in excellent health.

2. Mrs. M. D., twenty-one years of age. Has a child seven months old. Before marriage worked in silk braid factory and made from \$1.50 to \$2 per day. Has worked here five weeks. At first the constant standing made her feet ache and swell, but those conditions have disappeared. At present she has a sore throat and has been treated by the association's physician, who has forbidden her to work for two days. I was informed that any employee who has been ill twenty-four hours must report to the association's physician, undergo an examination and not return to work until he permits it. Mrs. D. claims to have gained 5 lb. in the last five weeks. She appeared to be in good condition.

#### BERGEN STREET DEPOT

This depot is in charge of a depot master. The female conductors detailed to this depot consist of twenty-seven fully qualified and five partially qualified.

They serve on the following lines: Bergen Street, Summer Avenue, Tompkins Avenue, Lorimer Street, St. John's Place and Hoyt and Sackett Streets.

The rest room is located in a store on the opposite side of the street. It is about 30 ft. x 20 ft. x 10 ft., is ventilated by two windows, lighted by gas and heated by base-burner stove. It is furnished with lounge and numerous chairs. In the rear a portion is partitioned off and is used as a lunch room. It contains table and chairs and lockers. There is a matron in attendance, who at the time of my visit was serving lunch to several women conductors. The change-making table was in course of installment. I interviewed two conductors.

1. P. M., about twenty-two years of age, formerly employed as weaver in the American Rattan Company. Piece work averaged \$12 to \$12.50 per week. Employed here for about one month. She is accustomed to standing and does not mind it. She has not gained or lost weight, and appears to be in robust health.

2. S. B., about twenty-four years of age, formerly worked on a farm at Riverhead, L. I. Is a farmer's daughter. Has been employed two weeks and prefers this work to farm work. She is in robust health.

I also interviewed another young woman whose car left in a few minutes, so I was unable to obtain a full account of her work. She told me, however, that she preferred night work, as she did not go on duty until noon and that gave her a chance to sleep late in the morning.

The toilet here is located in the hall and at date of



visit was out of order. The women conductors use the toilets in the main building on the opposite side of the street, intended for the office employees.

#### FLATBUSH DEPOT

This depot is in charge of depot master. The female conductors detailed to this department consist of thirty-four fully qualified and three partially qualified. They serve on the Nostrand Avenue, Flatbush Avenue, Ocean Avenue, Rogers Avenue and Avenue C lines.

The rest room is located upstairs. It is a large, airy room about 40 ft. x 30 ft. x 12 ft., lighted by three windows. It contained twenty-four lockers, a change-making table, a lounge and numerous chairs. The toilet room with two bowls and two wash basins is located across the hall, all clean and sanitary. I interviewed two conductors.

1. A. O., twenty-two years of age. Formerly employed as a domestic. Has been employed here since Jan. 1. She finds the work easy and prefers to work during the day from 6.38 a.m. to 7 p.m., with intervening "swings." Her run requires about one hour.

2. O. D., twenty-two years of age. Formerly employed as saleswoman in Wanamaker's, where she received \$12 per week. She is accustomed to standing and enjoys her work. She was most enthusiastic and said all the women were kindly and considerately treated by the Brooklyn Rapid Transit people from the highest to the lowest.

This completes the inspection of the depots, and the conductors detailed to surface cars.

I interviewed many whose "swings" expired shortly, and who, therefore were unable to give me a detailed account of their work.

Many preferred to work from noon or early afternoon to midnight and later with intervening swings, as this allowed them to sleep late in the morning. Others preferred the early morning hours, which enabled them to have their evenings free. Efforts have been made to detail a conductor as near her place of residence as possible. Some conductors preferred to serve on the "open-in-the-center" cars; others on the rear platform cars. In all types of cars, the muscular effort is slight.

When visiting the school of instruction, Fifty-eighth Street and Second Avenue, I tried each form of car myself. Personally I thought the "open-in-the-center" car the easiest, as all operations—opening and shutting doors, receiving fares and transfers, etc.—were performed by merely pushing a button.

In the rear platform cars, these same operations required pulling various cords. Leather handles, I noticed, have been attached to these cords, thus requiring a shorter reach for the conductor. This type of car is decidedly the most popular, as the women claim they obtain more exercise and are not obliged to stand constantly in the same space.

#### HEALTH OF WOMEN EMPLOYEES

The Brooklyn Rapid Transit Company has employed women as conductors, guards, car cleaners and porters since about Dec. 11, 1917. At the headquarters, I was informed that there have been but a few cases of illness among the female employees and no cases of pneumonia at all. The employees who have resigned have done so on account of the work interfering with their home duties and obligations or the objections raised by their relatives. Many who passed the different tests and were accepted failed to appear at the school of instruction and the matter was dropped. Ticket agents on duty at

the elevated roads have been so employed for the last twenty years or more, so I did not make any investigations of their condition. Those at the subway stations are more recent. It is absolutely impossible for any person to state definitely whether or not the work is injurious to the "health and moral fiber" of women. Time alone will show. As far as I was able to observe, the women were in good physical condition, lively, interested and enthusiastic over their work.

Of course, only women in good physical condition are accepted by the physician. All the conductors are women whose former positions were less remunerative. Many were employed in factories and stores where constant standing was required without the fresh air they now enjoy as conductors.

It is but natural to conclude that, with the increasing salary, which permits better food and living quarters and freedom from financial worries, in addition to the fresh air, their physical condition will improve rather than deteriorate.

Through the courtesy of the examining physician of the Brooklyn Rapid Transit, I was permitted to select an applicant for the position of conductor who appeared in perfect physical condition and make a physical examination. The applicant will receive her appointment in a few days. I have permission to visit the station where she is detailed and make another examination in two weeks, to compare the results and thereby ascertain whether or not her health has improved or deteriorated.

As far as I could ascertain all applicants for position have been politely and courteously treated by the Brooklyn Rapid Transit Company.

Mr. Dempsey, vice-president of the company, very kindly gave Mr. Whitney and myself a letter requesting all employees to allow us to make any investigation necessary, also to answer any questions we might ask. He also requested me to inform him of any conditions which I considered undesirable. I complied with his request.

I make the following recommendations:

1. Regulate the hours of the employees that all may have one day of rest in seven.
2. Regulate the length of runs, making one hour and thirty minutes the maximum length of time between car depots or toilet facilities.
3. Complete the construction of the rest rooms and install a matron in each.
4. Provide heat in booths of ticket agents and boxes of coin agents.
5. Prohibit dry sweeping of subway.
6. Remove pools of water and repair plumbing at different subway stations.

Respectfully submitted,

(Signed) ROSALIE BELL, M. D., Medical Inspector.

#### REPORT ON NEW YORK RAILWAYS

March 4, 1918.

Hon. JAMES L. GERSON,  
First Deputy Commissioner,  
State Industrial Commission.

DEAR SIR:

In accordance with your request I have made an investigation of the complaints made by the Central Federated Union of New York and the Central Labor Union of Brooklyn and Queens regarding the employment of women on the elevated, trolley and subways.



The New York Railways (Theodore Shonts, president), operates numerous lines of surface cars in the Borough of Manhattan. Since Dec. 4, 1917, it has employed women as conductors. At the present time it has about 462 women conductors.

The company's employment office is located at Fiftieth Street and Seventh Avenue. Applications are received from 9 a. m. to 5 p. m., and all women applicants are interviewed by a woman who is in charge of the women's department of employment.

The applicant must be twenty-one years of age and 5 ft. 5 in. in height. She is required to fill out an application blank (form attached), and later undergoes a physical examination at the private office of the physician who makes the examination (form attached). Four physicians—three male and one female—are employed by the company to examine all applicants. Another physician with an office at headquarters examines employees who wish to enter the association. He also tenders them medical and surgical aid at their homes when necessary.

When applicants have successfully passed the physical examination, etc., and are accepted, they are detailed to the school of instruction also located at headquarters, Fiftieth Street and Seventh Avenue.

The instruction consists in lectures, etc., relative to filling out day cards, recording number of trips, fares, transfers, etc. This instruction is usually completed in one day, after which the applicants accompany an experienced conductor on their cars for several days, thereby receiving practical demonstrations and instructions. The entire course requires usually about five days, during which time they receive \$2 per day from the company. When they give entire satisfaction, they receive an appointment and are detailed to one of the numerous car depots throughout Manhattan.

The uniform consists of a cotton khaki colored cap, blouse, bloomers and puttees, with ordinary shoes. Each conductor is provided with a badge, puncher and police whistle.

The eight car depots of the company are at: Fiftieth Street and Seventh Avenue; Fiftieth Street and Eighth Avenue; Fifty-fourth Street and Ninth Avenue; One Hundred and Forty-sixth Street and Lenox Avenue; Forty-second Street and North River; Twenty-third Street and North River; Fourteenth Street and Avenue B and 605 Grand Street.

#### FIFTIETH STREET AND SEVENTH AVENUE DEPOT

The number of female conductors detailed to this depot is 168. They serve on the following lines: Broadway and Columbus Avenue, Broadway and Amsterdam and Seventh Avenue.

The rest room is at Fiftieth Street and Seventh Avenue headquarters, and will accommodate about 174 conductors. It measures about 40 ft. x 20 ft., is ventilated by two windows, is heated by steam and lighted by electricity. It contains seventy-two lockers, two tables, ten chairs, three bowls and two wash basins. There are hot and cold water, liquid soap, paper towels and every convenience.

I interviewed four conductors:

1. Mrs. A. B., about twenty-five years of age. Husband has been drafted. Has child six years old. Worked in a factory before her marriage. Has been employed as con-

ductor for one month. Has never worked more than ten hours per day. Seems to be in excellent health.

2. F. S. Formerly employed as assistant paymaster by a tobacco corporation. Received \$17 per week. She says she prefers this work. Seems to be in good health.

3. B. U., about thirty-five years of age. Formerly a practical nurse. Gave up that work as she did not wish night work. At present she works during the day and is able to take a day off whenever she finds it necessary. She prefers a "hobble" car, which allows the conductor to sit all day. She has been employed since Dec. 11 and claims that her health has improved. She seems in good health and is extremely intelligent.

4. C. B., about twenty-five years of age. Born in Ireland. Formerly employed as lady's maid at \$35 per month. Has worked as conductor since Dec. 11, 1917. She also prefers a "hobble" car, as this permits her to sit all day. She is very robust in appearance and seems to be in perfect health.

#### FIFTIETH STREET AND EIGHTH AVENUE

There are ninety-five female conductors detailed to this depot. They serve on the Ninth Avenue cars.

The rest room is large and square (about 30 ft. x 30 ft.), ventilated by one large and three small windows, heated by steam and lighted by electricity. It is furnished with three tables, numerous chairs and several benches. There are 120 lockers here, a telephone and adequate toilet facilities. I interviewed several conductors, as follows:

1. R. A., twenty-two years of age, of Swedish birth. Formerly employed as a governess and received \$30 per month with room and board. Has been employed as a conductor for the last eight weeks. She is detailed to a platform car and cannot sit down very often. For the first few days she had a backache, but that gradually disappeared. Her feet have never troubled her. She is of robust appearance and possesses good health, though at times she is obliged to rest for a day or two. This is perfectly agreeable to her employers and for that reason she prefers this position to one in which she would be obliged to be constantly on duty. She begins her first run at 12.25 p.m. and works until 3.30 p.m., then swings 6.25 p.m. to 1.05 a.m. She does not object to working past midnight and never has had any trouble with passengers.

2. Mrs. B. S., twenty-seven years of age. Formerly employed as waitress, later as cashier in a bathing pavilion at Asbury Park. Has been married eight months. Has worked here about eight weeks. Hours from 7.45 a.m. to 7.33 p.m. with intervening swings. At first work made her ache all over, particularly her arms. This disappeared in about four or five days. Since that time she has not been affected and claims to be in excellent health.

3. Mrs. L. S., about thirty-eight years of age. Formerly employed as a trained nurse. She has three children, eldest nineteen years of age. Employed as conductor for the last six weeks. Has not been affected in any way.

#### FIFTY-FOURTH STREET AND NINTH AVENUE

Fifteen female conductors are detailed to this depot. They serve on the Ninth Avenue line.

The rest room is about 30 x 30 ft., ventilated by three windows, heated by steam, lighted by electricity, furnished with one long table, five settees and numerous chairs. There are three shower baths at this rest room. In the toilet rooms are the bowls, two wash basins, paper towels and every convenience. I interviewed several conductors:

1. Mrs. M. M., twenty-six years of age. Has one child six years of age. Formerly employed as a coat checker in Jack's restaurant. Received \$10 per week. Has been employed as conductor for the last two weeks. Begins work at 11 a.m. and finishes at 1.05 a.m. with intervening swings. She has a very robust appearance and claims to be in good health.

2. Mrs. A. D., twenty-one years of age. Has never worked before. Has been employed for the last three days and claims to be in perfect health. She seems less than 5 ft. 4 in. in height, and I advised her to serve on a hobble car.



3. G. P. Formerly employed as cashier by the Edison Company and received \$9 per week. Has been employed as conductor for the last eight weeks and serves on a Broadway and Amsterdam "hobble" car. The doors of this car are opened and closed by the pressing of a pedal. She informed me that the amount of force required was but slight—a mere touch is sufficient. After working a few days she had slight rheumatism in one arm, but this condition has disappeared. Her hours are from 12.55 p.m. to 4.15 p.m., then swings to 6.55 p.m. to 1.30 a.m. She does not object to night work.

#### ONE HUNDRED AND FORTY-SIXTH STREET AND LENOX AVENUE

Ten female conductors are detailed to this depot. They serve on the One Hundred and Forty-fifth Street and One Hundred and Twenty-fifth Street lines.

The rest room measures about 25 ft. x 20 ft. It is well lighted and ventilated, heated and furnished with three benches, a table and ten chairs. The toilet room has six bowls and three wash basins.

This is not intended as a regular rest room, but as a stopping place, at the end of different lines. No conductors were resting here, so I was unable to interview any.

#### FORTY-SECOND STREET AND NORTH RIVER

The female conductors detailed to this depot are fifty-five. They serve on the Thirty-fourth Street line. The rest room is about 25 ft. x 15 ft., ventilated by two windows, heated by steam and lighted by electricity. It is furnished with a table, ten chairs and eighteen lockers. There is a toilet but no wash basin. A telephone has been installed. I was unable to interview any of the conductors.

#### TWENTIETH STREET AND NORTH RIVER

The female conductors detailed to this depot are thirty-nine. They serve on the Twenty-third Street crosstown line. The rest room is about 15 ft. square, ventilated by two windows, heated by base-burner stove and furnished with a table, two settees and seven chairs. There are sixteen lockers and a telephone has been installed. I interviewed one conductor.

1. M. C., about thirty-five years of age. She has had various positions and experiences. First as a governess in England; later as proprietor of a tea room in Vancouver, B.C. She has been in New York one year and was employed previously as a passenger elevator operator in Greenhut's, but this work was very trying on account of the bad air she constantly breathed. She has been employed about one month as conductor and prefers it on account of the fresh air. She claims some of the passengers are insulting and she has been obliged to reprimand them. She prefers the closed car which enables her to sit down. At times she is obliged to take a day off. She claims her health has improved. This woman seemed extremely intelligent, refined, well educated and not of a very robust appearance, and rather unsuited to the work. She expects to return to England as soon as conditions there are more favorable.

#### FOURTEENTH STREET AND AVENUE B

Fifty-one female conductors are detailed to this depot. They serve on the Fourteenth Street Crosstown and Eighth Street lines. The rest room is on the top floor of the building, and measures about 40 ft. x 20 ft. It is ventilated by one window, heated by steam and furnished with a table, three settees and numerous chairs; twenty-four lockers and a telephone have been installed. There are three bowls and three wash basins. I interviewed two conductors.

1. Mrs. S. M., about thirty years of age. Has three children. Formerly employed as saleswoman in Woolworth's

and received \$7 per week. She has been employed as a conductor for the last month and does not find the work as hard as that of her former occupation. She has placed her children in a home and once a week, during a swing, she is able to visit them. She works from 6.17 a.m. to 9.16 a.m., then swings to 11.59 a.m. to 3.02 p.m., then swings to 5.11 p.m. to 7.50 p.m.

She is a rather fragile-looking woman, but claims to be in good health. Her feet were very tender and swollen at first, but at present do not bother her.

2. M. M., about twenty-two years of age, born in Italy. Formerly employed as a cashier in a theater and received \$8 per week; later as a finisher on suits and made about \$18 to \$19 per week piece work. Has been employed as conductor for the last month. She works from 7.07 a.m. to 8.40 a.m., then swings to 11.42 a.m. to 1.52 p.m., then swings to 4.37 a.m. to 9.09 p.m. She has not become quite accustomed to the work and doubts whether or not she will continue it.

#### GRAND STREET

Twenty-nine female conductors are detailed to this depot. They serve on the following lines: Spring Street, Madison Street, Houston Street and Prince Street. The rest room is located on the top floor of the building, and is about 50 ft. x 20 ft. It is ventilated by five windows and a skylight, heated by a large base-burner stove and furnished with a long table, four settees, and eight chairs. Twenty lockers and a telephone have been installed. Two bowls and two wash sinks are located on the opposite side of the hall.

This is a very bright, cheerful room and in my opinion the most comfortable and attractive rest room. I interviewed two conductors.

1. C. S., twenty-two years of age. Formerly employed as waitress in St. Catherine's Hospital, Brooklyn, where she received \$18 per month with room and board. When I asked her why she worked in Manhattan when she lived in Brooklyn, she informed me that she considered the uniform of Manhattan conductors more attractive than that of the Brooklyn Rapid Transit conductors. She serves as follows: Spring and Delancy Street from 12.18 a.m. to 3 p.m., then swings to 4.44 p.m. to 12.02 a.m. Bridge local, 7.17 a.m. to 12.58 p.m., then swings to 2.58 p.m. to 7.20 p.m. She seemed to be in good health.

2. F. K., twenty-two years of age. Formerly employed as saleswoman by Woolworth's. Received \$7.75 per week. Later received \$10 per week as saleswoman in a store. She serves on a Spring and Delancy Street car from 6.12 a.m. to 8.47 p.m., then swings to 11.45 a.m. to 3.30 p.m., then swings to 5.06 p.m. to 7.30 p.m. She claims to be in good health and not inconvenienced by the long hours.

This completes the investigation of the rest rooms and women conductors.

#### CONCLUSIONS

As well as I could judge, all employees were courteously and kindly treated and had no complaint to make.

The New York Railways Company seems to be doing a great deal for its employees. A number of rest rooms have been comfortably equipped and inspected and supervised by a woman inspector.

A well-equipped dispensary is maintained at Fiftieth Street and Seventh Avenue. Here a physician and trained nurse are in daily attendance. They treat all accidents and injuries among the employees. Illnesses of various kinds are treated by the association's physician in another office located on the floor above. Trained nurses visit the employees when necessary.

Arrangements have been made with several hospitals whereby employees of the New York Railways can receive treatment when necessary.

The women seem to be in good physical condition. Those who were handicapped by an occasional disability were able to take from one to four days off per month



with the consent and approval of the company. Many were able to select the hours they preferred; also the type of car.

In reading over the histories of these women conductors, it will be observed that nearly all had been employed previously in some less remunerative work and were accustomed to constant standing.

All had been subjected to a complete physical examination.

I questioned the physician and nurse on duty the afternoon I inspected the school of instruction and dispensary. Both informed me that the women were in good condition, and the commonest complaint among them was that of twisted ankles, caused by wearing extremely high heels and jumping off the cars.

Some of the conductors are on duty from twelve to

# Telling the Public

## Columbus Company in Newspaper Advertisements Is Presenting Facts About the Present Cost of Electric Railway Service

THE Columbus Railway, Power & Light Company, Columbus, Ohio, has been conducting a noteworthy advertising campaign to acquaint its patrons with the reasons for its application for an increased fare. Previous references to some of the advertisements were made in the ELECTRIC RAILWAY JOURNAL of March 9, page 480, and March 23, page 589. The accompanying illustration shows three additional advertisements that have been selected from among those used up to the present time.

The first advertisement, shown on the left, is the pic-

**The Story in Pictures**

From our general expenses...

**General Expense**  
1917 is 1.35 times 1901

**Transportation Expense**  
1917 is 2.60 times 1901

**Taxes**  
1917 is 2.82 times 1901

**Maintenance Expense**  
1917 is 3.19 times 1901

**Power Expense**  
1917 is 6.69 times 1901

**Total Passengers**  
1917 is 254 times 1901

**Gross Receipts**  
1917 is 2.19 times 1901

*The Car-Ride Is the Unit of Service*

**The Columbus Railway, Power & Light Co.**

**Street Car Service**

**Dividing Up the Ticket**

ALUMBUS RAIL

**THE STREET CAR TICKET**

**Ask Questions**

**The Columbus Railway, Power & Light Company**  
SAMUEL G. McMEEN, President

NEWSPAPER ADS USED IN COLUMBUS TO GIVE FACTS ON COST OF ELECTRIC RAILWAY SERVICE

**THE OVERLOAD**

In 1901 a certain horse and a certain wagon were chosen to haul a certain load. The wagon was just so long and so wide and so deep and the load to be hauled was well known as to bulk and weight.

The horse was a pretty good horse, harnessed to good comfortable harness, and the driver had the "lines" in a comfortable fashion.

The job started off reasonably well, so:

Time went on, as time has a habit of doing, and the horse and wagon and driver kept at the job, and we come down to 1918:

The wagon remains the same size, notwithstanding an effort to make it "bugger" by putting on some extra boards.

It is the same good old horse, but he is seen to be pulling harder, the driver stands up and looks the while occasionally, which really doesn't help the horse to pull, but it is the way drivers have.

What the difference? Oh, the load is larger and it is heavier. No wonder the horse makes hard work of it: he would the driver swing the whip. And so we see it so.

1918 LOAD  
POPULATION 2,200,000  
TOTAL RIDES 82,750,000

**THE STREET CAR TICKET**

What is needed is not a new horse, for this horse is a perfectly good horse. We need a new wagon, that will carry the load without extra boards; that will have ball-bearing wheels and be built on a better frame, so the horse will have to strain himself and the driver may get away his whip and all doors can be kept tight.

Which is the end of the parable?

Like many parables, maybe this one has its faults. Probably many could give it differently, but we have tried to give you more angle of view of the very real facts of a growing, important modern city, a vitally essential transportation system, and their mutual inescapable problems.

**The Columbus Railway, Power and Light Company**  
SAMUEL G. McMEEN, President

thirteen hours per day, although they work but ten hours or less, with intervening swings.

In my opinion, this is too long a stretch. In addition they work seven days per week. It is true that the Sunday schedule requires shorter hours and that they are permitted to take a day off whenever necessary.

At present all seem to be in good condition, but whether or not they will be able to remain on duty so many hours, day after day, without a weekly day of rest remains to be seen. Many of the women have been employed as conductors for the last three months. A few lay off on an average of one day per week.

I make the following recommendations:

1. Regulate the hours of employment that all may have one day of rest in seven.
2. Regulate the length of runs, making one hour and thirty minutes the maximum length of time between car depots or toilet facilities.

Respectfully submitted,

(Signed) ROSALIE BELL, M. D., Medical Inspector.

torial story of increased electric railway cost. The data show clearly how since 1901 the expenses have outrun the receipts. This advertisement, as well as the others, also emphasizes the idea that the car ride is the unit of service given by the company, and that the receipts therefor have decreased.

The advertisement shown in the center gives in an illuminating way an analysis of where the 3 1/2 cents paid for each ticket goes. Each element of cost is explained in detail in the proper block, and the text emphasizes the inability of the company to meet the demands of depreciation, bond interest and dividends. Deferred maintenance and depreciation, it is said, will alone more than equal the amount available for these items, leaving nothing for interest or dividends.

The third advertisement, on the right, tells the parable of "The Overload." This presents in an unusual way the difficulty of electric railway operation under an outworn operating agreement between a railway and the municipality served.



# Six-Cent Fare Permitted in St. Louis

Missouri Commission Holds That Constitutional Consent Clause Does Not Bar It From Raising Franchise Rates to Provide Adequate Revenue — Suggests Ultimate Adoption of Zone System

CAR RIDERS in St. Louis, Mo., must pay a 6-cent fare after June 1. This is the happy finding of the Missouri Public Service Commission on the application of the United Railways for financial relief. A preliminary note in regard to the decision was published in the *ELECTRIC RAILWAY JOURNAL* of May 18.

The decision is a distinct victory for those who believe that municipal franchises do not constitute irrevocable contracts leaving States without power to regulate rates. In spite of a constitutional-consent clause in Missouri, the majority of the commissioners hold that it is their duty under the law to examine the facts and fix just and reasonable rates, notwithstanding franchise terms; and if the present rates are not sufficient to permit adequate service, then the public interest and welfare demand an increase of rates.

## COMMISSION HAS CONTROL OVER FRANCHISE RATES

The commission had decided in a preliminary report on the petition of the company, as noted in the issue of March 9, page 477, that it has the power to change franchise rates. In view of the importance of the decision and the recent finding of the New York Court of Appeals in the Rochester case [E. R. J., April 13, page 696; April 27, page 811], however, the commission further examined the authorities. As a result it adheres to its former ruling and believes that its power cannot be seriously questioned. The decision as to jurisdiction was made under the following heads:

### 1. *Constitutional Clause Not a Grant of Power to City*

The opposition contended that Section XX, Article 12, of the State Constitution, by requiring municipal consent to railway construction and operation, prevents the State from altering the rates during the fifty-year franchise life. In the commission's opinion, however, the only harmonious construction is to hold that this article, when construed with other constitutional provisions regarding the police power and the control of the Assembly over rates, either does not delegate the power of the State to the city or, if it does, the city is empowered to fix or agree to rates only until the State elects to change them.

Continuing on this point the commission says in part:

"There is much merit in the contention that Section XX, Article 12, is not a grant of power to the city but is merely a limitation upon the power of the Legislature.

"Street Railroads; Chapter 155 R. S. Mo. 1889; Chapter 33, Article 5, R. S. Mo. 1909. State ex rel Kansas City vs. Ry. Co., 140 Mo. 539; Birmingham, etc. Ry. Co. vs. Ry. Co., 79 Ala. 465; Beekman vs. R. R., 153 N. Y. 144, 152; Farrell vs. Railroad Co., 61 Conn. 127; Citizens Street Ry. Co. vs. Africa, 100 Tenn. 27; City of Detroit vs. Ry. Co., 56 Fed. (Mich.) 867, 880; Chicago, etc. Ry. Co. vs. People 73 Ill. 514; People vs. Mutual Gas Light Co., 38 Mich. 154; People vs. Ry. Co., 92 Mich. 522.

"The lack of authority in the city to deprive the State of the power to regulate the rates also appears from the line of cases holding that the city cannot grant an

exclusive franchise to an electric railway line upon its streets. This is the holding under both constitutional and statutory provisions, and shows that the city is not supreme in imposing conditions in its consent.

"St. Louis Transfer Ry. Co. vs. St. Louis Merchants Bridge Ry. Co., 111 Mo. 666; Grand Ave. Ry. Co. vs. Citizens Ry. Co., 148 Mo., l. c. 672; Birmingham, etc. Ry. Co. vs. Ry. Co., 79 Ala. 465; Parkhurst vs. Ry. Co., 23 Or. 471; Detroit Citizens Ry. Co. vs. City of Detroit, 110 Mich. 389, 171 U. S. 48. Booth on Street Railways (2nd Ed.), Sec. 29.

"The contention that Section XX, Article 12, is not a grant of power to the city to fix or regulate rates is also sustained by the following cases:

"State ex rel vs. Telephone Co., 189 Mo. 83; City of St. Louis vs. Bell Telephone Co., 96 Mo. 623; State vs. Pub. Serv. Comm., 270 Mo. 429; State Pub. Serv. Comm. ex rel vs. Railroad, 275 Ill. l. c. 570, P. U. R. 1917 B, 1046; Chicago vs. O'Connell 278 Ill. 591, 166 N. E. 210, P. U. R. 1917 E, 730; Woodburn vs. Pub. Serv. Comm., 161 Pac. 391, P. U. R. 1917 B, 967; Re Utah Light & Traction Co., P. U. R. 1918 E, l. c. 502."

### 2. *Rates Are Subject to State Regulation*

It may be, the commission remarks, that the city was empowered under Section XX, Article 12, or under its general power to contract, to impose or to fix rates by agreement with the company, but whatever its authority to enact the franchise ordinance the same was necessarily adopted subject to the provisions of the Constitution, reserving the rate-making power to the State and requiring the charter and ordinances of the city to conform always to the laws of the State. While the city had the right to refuse its consent, yet when this was given, it could not thereby deprive the State of its power to regulate the rates thereafter.

### 3. *Power to Regulate by Compulsion*

The fact that the city may have had authority as between itself and the company to make an agreement as to rates does not, to the commission's mind, mean that it had the right to contract away the police power of the State to fix rates by compulsion. This power had not been delegated or surrendered to the city. The rule is said to be well stated by the Oregon Supreme Court in Woodburn vs. Public Service Commission, 161 Pac. 391, P. U. R., 1917 B, l. c. 977.

"The right of the State to regulate rates by compulsion is a police power and must not be confused with the right of a city to exercise its contractual power to agree with a public service company upon the terms of a franchise. \* \* \* The power to fix rates by compulsion is not granted to cities or towns; nor is the right of the Assembly to legislate upon that subject curbed by the State Constitution, because in its essence it is neither a municipal power nor an incident to a pure municipal power."

### 4. *Not an Impairment of Contract*

As to the assertion that an increase in franchise rates would be an impairment of contract, the commis-



sion holds that this is not so within the meaning of the Federal or State Constitution. (*Woodburn vs. Public Service Commission, supra.*) The State's act of regulation is not an impairment of contract but rather an exercise of a right provided in the contract.

##### 5. *New York Case Not Applicable*

With reference to the recent Rochester decision in New York, the Missouri commission notes that the court expressly declined to pass upon the power of the legislature to alter franchise rates, in view of the lack of a provision in the regulatory law empowering the commission to raise franchise rates. The Missouri commission says:

"While we do not agree with the decision of the New York court, the decision is not in point in this case, as it cannot be doubted in view of the enactments and course of legislation in Missouri that it was the intention to confer, and the Legislature did confer upon this commission by the public service commission act of 1913, the power to regulate rates prescribed in franchises as well as other rates."

Having decided that it has power over franchise rates and having analyzed all the data, the commission discusses the question of relief. Pending a valuation of the property which the commission will make hereafter, through its own engineers, at as early a date as practicable, it is of the opinion that the investment, within the limits of the city of St. Louis, should be placed at \$52,800,000. The average net annual return to which the company is entitled, after paying operating expenses and taxes and providing a reserve for replacements, including both minor and major obsolescence, is \$3,168,000, or at the rate of 6 per cent.

##### COMPANY IS ENTITLED TO RELIEF

The commission estimates the operating revenue for 1918 at \$12,731,792, which is about 3 per cent less than for 1917. The reduction is based partly upon a comparison of the revenue for January and February, 1918 (exclusive of the strike period), with the corresponding period of 1917, showing a decrease of 4.24 per cent for 1918; and upon a similar comparison for the first three months of the same years, showing a decrease of 2.83 per cent for 1918.

The commission believes that the reserves set up by the company are reasonable, to wit: Depreciation reserve, 10 per cent of gross revenue; injuries and damages reserve, 6 per cent of gross revenue, and insurance reserve, three-fourths of 1 per cent of gross revenue. The amounts credited to the depreciation reserve were \$1,228,836 in 1913; \$1,054,296 in 1914; \$1,107,344 in 1915; \$1,264,129 in 1916, and \$1,312,555 in 1917. The total estimated amount to be reserved each year is \$1,805,795. This exceeds the amount actually credited during any year cited. In the commission's opinion, the practice of the company does not make an excessive provision for depreciation.

The amount of \$938,500 is estimated as the net income available for interest and dividends in 1918. This return is \$2,229,500 less than the company is entitled to receive on the basis of the tentative valuation and is \$1,584,730 less than the amount required to pay the interest on the funded debt.

It is apparent, the commission believes, that the com-

pany is entitled to temporary relief, and that the ultimate interest of the city likewise demands that such relief be granted. A reduction in service is not considered advisable at this time.

The commission remarks that the adoption of a zone system of rates, with a reduction in the fare for short rides to 3 cents or 4 cents, and an increase in the fare for long rides, approximately proportional to the distance traveled, would offer the most equitable solution, although it would entail some readjustment of real estate values and would undoubtedly be opposed at present by a large portion of the people of the city. Moreover, it would probably require the reconstruction of the cars at considerable expense, so as to permit the use of the "pay as you leave" system of collecting fares in place of the present "pay as you enter" system.

##### ZONE SYSTEM SHOULD BE CAREFULLY CONSIDERED

The company is adverse to the adoption of the zone system at this time, and, under all the circumstances, the commission concludes, for the present at least, to retain the system of uniform rates for all distances within the city limits, though it would urge upon both the city and the company a careful consideration of the zone system, with a view to its ultimate adoption as soon as the public can be brought to a realization of its advantages.

The commission looks upon a transfer charge as very undesirable and working a hardship upon a considerable portion of the traveling public. Increasing the fare for adults to 6 cents within the city and retaining the 2½ cents fare for children, however, will provide an estimated increase in revenue of \$2,026,079, which is approximately \$200,000 less than the required increase. The commission therefore concludes that such fares shall be allowed. The company will be required to issue coupon books, without reduction of rate.

The commission will retain control over the case and will so change the fare from time to time, by a reduction either in the basic rate or in the price of coupon books, as to insure a net average return as allowed, and no more. The commission adds, in concluding:

"If the company will agree to set aside any excess earnings, above the net return herein allowed, for interest and dividends, in a fund to be used as a reserve or to be expended for extensions, improvements and betterments with the consent of the commission, without capitalizing same as against the city and with due regard to the principle that such excess earnings shall primarily accrue to the public's benefit, it will not be necessary to change the rates as often as might otherwise be deemed advisable, as the city would receive the benefit of such excess earnings as might accrue. The commission, therefore, would entertain a proposition from the company in line with the above suggestion.

"The company has expressed a willingness to grant an increase of 10 cents per hour in the wages of motor-men and conductors and a corresponding increase in the wages of all other employees whose salaries do not exceed \$200 per month. The commission has based its estimate of operating expenses on such an increase in wages. The commission, however, does not hereby fix and determine this increase in wages, believing that the wages should be determined by arbitration."



## Annual Brown Book Issued

Central Electric Railway Association and Allied Bodies Publish  
Their Official List for 1918

**B**ROWN BOOK No. 8 of the Central Electric Railway Association, Central Electric Traffic Association and Central Electric Accountants' Association was issued from Indianapolis on May 15. It contains a list of offi-

cers, committees and members of the different associations, with their annual reports and other matter of interest relating to them. A list of the chairmen of the different committees follows:

### CENTRAL ELECTRIC RAILWAY ASSOCIATION

*Auditing Committee*—Walter Shroyer, Anderson, Ind.  
*Annual Transportation*—H. A. Nicholl, Anderson, Ind.  
*Bureau of Standards*—Adolph Schlesinger, Anderson, Ind.  
*Constitution and By-Laws*—A. W. Brady, Anderson, Ind.  
*Finance Committee*—F. D. Carpenter, Lima, Ohio.  
*Hotel and Arrangement*—S. D. Hutchins, Westinghouse Traction Brake Company.  
*Joint Interline Folder*—E. B. Peck, Indianapolis, Ind.  
*Membership*—A. C. Blinn, Akron, Ohio.  
*Military Efficiency and Defense*—A. W. Brady, Anderson, Ind.  
*Program*—E. B. Peck, Indianapolis, Ind.  
*Publicity*—E. R. Kelsay, Toledo, Ohio.  
*Resolutions*—A. W. Brady, Anderson, Ind.  
*Rules Governing Interchange of Equipment*—H. A. Nicholl, Anderson, Ind.  
*Standardization*—H. H. Ross, Toledo, Ohio.

*Uniform Charges for Repairs to Interchanged Equipment*—H. G. Gilpin, Springfield, Ohio.

*Supply Men*—S. D. Hutchins, Westinghouse Traction Brake Company.

*Transportation*—G. K. Jeffries, Indianapolis, Ind.

*Track and Roadway*—T. R. H. Daniels, Indianapolis, Ind.

### CENTRAL ELECTRIC TRAFFIC ASSOCIATION

*Auditing*—Walter Shroyer, Anderson, Ind.

*Booster*—F. D. Norviel, Anderson, Ind.

*Conference*—F. D. Norviel, Anderson, Ind.

*Conference with Central Freight Association and Central Passenger Association*—J. H. Pound, Benton Harbor, Mich.

*Constitution and By-Laws*—C. J. Laney, Akron, Ohio.

*Freight Rates*—F. D. Norviel, Anderson, Ind.

*Interchangeable Penny Coupon Ticket*—W. S. Whitney, Springfield, Ohio.

*Interline Baggage*—O. H. Murlin, Dayton, Ohio.

*Joint Passenger Tariffs*—W. S. Whitney, Springfield, Ohio.

*Joint Freight Tariffs*—J. H. Pound, Benton Harbor, Mich.

*Military Traffic*—F. D. Norviel, Anderson, Ind.

*Official Classification*—W. S. Whitney, Springfield, Ohio.

*Joint Exception Tariff*—C. O. Sullivan, Lima, Ohio.

*Joint Weight and Inspection Bureau*—J. H. Crall, Indianapolis, Ind.

*Official Interurban Map*—G. M. Patterson, Fort Wayne, Ind.

*Official Interurban Guide*—C. O. Sullivan, Lima, Ohio.

*Rules Governing Settlement of Freight Claims*—F. D. Norviel, Anderson, Ind.

*Storage and Demurrage*—C. O. Sullivan, Lima, Ohio.

### CENTRAL ELECTRIC RAILWAY ACCOUNTANTS' ASSOCIATION

*Clearing House*—E. L. Kasemeier, Springfield, Ohio.

*Compiling*—L. T. Hixson, Indianapolis, Ind.

*Freight and Express Accounts*—Walter Shroyer, Anderson, Ind.

*Light and Power*—A. E. Dedrick, Youngstown, Ohio.

## In the Heart of the Allegheny Mountains

**F**AR up in the Allegheny Mountains at Bluefield, W. Va., at the eastern terminus of the Norfolk & Western electrification, is a small trolley line operated by the Appalachian Power Company. Although the railway end of this company's business is only 4 to 5 per cent of its total gross, it operates the property on the principle of selling transportation. Bluefield itself has some 18,000 people and Graham, Va., with which connection is made, has only 2500. Nevertheless, the railway carries 6000 passengers a day in five cars. At no time are more than eight cars in service.

The longest straightway ride is 3 miles, but it is possible to ride 5 miles on a transfer. Because of the mountainous character of the section, the track is practically of shoestring character since it follows the valley.

When the present interests took hold, about five years ago, the service was poor and unappreciated. Old single-truck cars were used, and these were operated only at intervals of twenty minutes. These cars were replaced with double-truck cars, to which two new steel single-truck cars were added last year, and the headway was cut to ten minutes. This produced at once an increase of 25 to 30 per cent in gross income. Since then travel has grown at the rate of 10 per cent

a year, or practically in parallel with the increase in population. There are no jitneys but quite a number of private automobiles which draw some business from the railway through the hospitality of their owners. These are expected to diminish gradually in view of government restrictions on output of machines, etc. Up to Feb. 1, 1918, franchise stipulations compelled the company to sell workmen's tickets at the rate of fifty for \$1.50 and tickets good at any time at the rate of six for 25 cents. On presentation of its case, the West Virginia Public Service Commission permitted the company to change to a straight 5-cent fare. There was no protest. This change has caused a drop of 10 per cent in travel but an increase of 8 per cent in gross. Most of the traffic comes from railroad employees, clerks and merchants. Even the latter would travel on the 3-cent tickets.

The labor problem in this high-wage, coal-mining center is just as hard for this company with its small number of railway men as for many a big system. About half the men, says Herbert Markle, general manager, stick to their jobs, while the rest are floaters. Within the past year wages have been raised twice—a 5 per cent increase in wages and then a 10 per cent war bonus—making the average wage about 30 cents an hour.

Just as soon as the proper track labor can be obtained, a passing track will be put down in the heart of Blue-



field to permit the effective operation of one-man cars. The present rolling stock is vestibuled, but no air brakes are installed. One-man operation is recognized by the management as the only way of continuing to give good service with some return on the investment.

## LETTERS TO THE EDITORS

### Limitations in Track Spiral Standardization

BROOKLYN RAPID TRANSIT COMPANY

BROOKLYN, N. Y., May 21, 1918

To the Editors:

Relative to the article by E. M. T. Ryder describing a proposed uniform system of spirals and the editorial thereon appearing in the issue of April 6, 1918, I wish to submit the following comments:

The proposed spirals, being based on the use of 5-ft. chords subtended by the center line of successive variable radii and consequently requiring all engineering data to be based on the center line of curve, are directly opposed to the established street railway practice of referring all engineering data to the inner gage line of curves. For this reason, instead of simplifying the methods of computation, the proposed spirals would only add to the labor of computing.

As a result of the rather long chords proposed, the ends of the spirals would be projected beyond the first frog into the curved crossing in double track lines, which, as will be understood by special work draftsmen, complicates computations considerably; compound curves should be eliminated from frogs whenever possible. Due to the essential design of frogs the alignment of curves is broken at every intersection and the resultant shock would be accentuated if there were compound curves in them.

When used in connection with tongue switches, most spirals become spirals in name only since a considerable proportion will be taken up by the arc of the switch radius used. In the case of a 100-ft. radius switch this will amount to about 7 deg. 30 min., and if the spiral is not used through the first frog, only two or possibly three radii of the spiral remain. The importance of spirals in special work proper has been very much exaggerated. They are more needed and are more useful in connection with the plain ends of branch-offs or plain curves.

There is practically no need for deflection angles when special work is laid out, since with the rather short middle radii used in street railway work special work is manufactured to template, and the information which is given on the drawing of the manufacturers is sufficient.

As to economies to be effected by the addition of another spiral to the miscellaneous assortment now in use, neither first cost nor subsequent maintenance would be affected, and I fully agree with A. E. Harvey and the others who have so clearly explained this phase of the question in previous letters to you.

Why not revise the design of A.E.R.E.A. standard guard rail to allow the use of 12-ft. lengths upon which practically all street railway spirals are based?

M. BERNARD, Assistant Engineer.

THE CONNECTICUT COMPANY

NEW HAVEN, CONN., May 21, 1918.

To The Editors:

I have read with interest the discussion on track spirals which has been published in your paper and consider that Mr. Harvey's letter covers the case fully and that no material advantage would be gained by attempting to standardize along the lines suggested. Mr. Ryder's article shows that there is practically no difference in the actual alignment of track, no matter which of the various spirals are used. Moreover, it would be many years before this standardization could be utilized, since the greater part of special work renewals would require that the repair pieces conform to the original layouts.

I understand that one steel company alone has templates for approximately 300 different spirals now, and if a new set of spirals were adopted as standard, it would mean an additional set of templates for each of the spirals adopted as standard, thus adding that much to the present number held by this one company.

Another feature not mentioned by Mr. Ryder, nor so far as I have seen by any of your correspondents, is the fact that while Mr. Ryder's spirals are figured to center line, two of the three larger steel companies figure their spirals to inside gage line, the purpose being to allow the use of their spirals for railways having a track gage greater, or less, than the standard gage, and there are several such railways in the United States. To make Mr. Ryder's spirals standard, therefore, they should be figured for the inside gage line, or it will be necessary to have additional standard spirals for companies not using standard gage.

Mr. Ryder's statement that the proposed spirals can be laid out on the ground by transit, if desired, is not inherent in these particular spirals, since all spirals can be laid out in the same way, and while it may be true that all spirals have not been tabulated with the view of staking them, they can be easily figured and tabulated so that the proposed standards will not have any advantage over those now in use in this respect.

Personally I would hesitate to recommend the adoption of these standards for use on our lines, as I cannot see where the company would be a gainer, since we have our data so worked up that it is a simple matter to determine car clearances in making layouts.

If present business conditions are to result in a curtailment of orders, this does not seem a good time to attempt a standardization which entails the cost of new templates for all steel companies. Moreover, as I assume that most of the curtailments will be in the renewal of entire layouts, such orders as do go through would be for parts of layouts and would of necessity require the use of the existing curvatures of the pieces to be renewed. There is so little difference between present spirals and the one proposed as standard, that it would be a step toward co-operation and economy for the railway companies to use exclusively the spirals of the three larger steel companies. This would make use of material and computations already existing, reduce the troubles and vexations mentioned by Mr. Angerer, and give results practically as close as with one standard.

W. R. DUNHAM, JR.,  
Engineer Maintenance of Way.



## AMERICAN ASSOCIATION NEWS

### War Board Issues Bulletins

**D**URING the last week four bulletins have been issued by the American Electric Railway War Board. No. 16 transmits the bulletin issued by the Highways Transport Committee of the Council of National Defense on the establishment of return loads bureaus. No. 17 gives the text of the federal act approved by the President on April 20 in which electric railways are enumerated among other "war utilities" whose willful injury or destruction is punishable according to the terms enumerated in the act. No. 18 gives the text of the federal act approved on April 22 in which the President and his designated agents are empowered to take over street and interurban railroads for the transportation of shipyard and plant employees, and No. 19 is a copy of the rules issued by the National War Labor Board giving the procedure for taking up industrial disputes with that board.

### Manila Company Section Holds April Meeting

**T**HE chief feature at the meeting on April 2 of the Manila Company section was a talk by James C. Rockwell, general manager of the company, who had recently returned from the United States after a six months' vacation trip. He described the principal events of his tour, the evidences of war conditions which he had noticed and particularly the use of women conductors and guards in New York and Brooklyn. He said that the work of these women appeared to him to be excellent and the service rendered by them quite as good as that by men. In fact, he believed that it was rather better, as they had a quiet dignity about them which is too often lacking in men similarly engaged. Mr. Rockwell was introduced by Vice-President Duffy, who told of an interview which he had had with Hon. P. S. Reinsch, United States Minister to China, on the possibilities for development along commercial lines of the Philippine Islands.

### "Snow-Fighting Night" at Milwaukee

**A**T THE APRIL meeting of company section No. 1 the entire evening was devoted to talks and discussions on snow fighting and snow-fighting equipment. R. R. Lukens, superintendent of way and structures, operating; H. A. Mullett, superintendent of rolling stock; R. H. Pinkley, superintendent of way and structures, engineering; G. M. Kuemmerlein, superintendent of transportation, and A. J. Killa, transportation department, took up the subject from the standpoints of their several departments. Supervisors Henningfeld, Wunderlich, Hackbarth, White, Throop and Hungsinger also gave interesting talks on their experiences in big snowstorms.

Mr. Lukens made a comparison between the snowstorms of 1881 and of last winter. He dwelt particularly upon the damage caused by thawing following the five severe storms of January and February. Mr. Mullett emphasized the importance of the part played by

track sweepers in keeping the arteries of traffic open and described the types of sweepers in use at Milwaukee. Mr. Pinkley spoke of the formation of ice and snow and showed some slides from pictures made during recent snowstorms and also some illustrating the types of plows used. Mr. Kuemmerlein considered the delays caused by the compelling of teams and other vehicles to use the car tracks as one of the most serious problems in connection with snow handling. He told how the lines had been kept open in storms and also how expensive this work is. Mr. Killa outlined the local snow-fighting procedure and mentioned the fact that during last winter's storms some men operated sweepers as long as thirty-six hours continuously.

### War Activities Reviewed at Capital Traction Meeting

**A**T THE FINAL meeting of the 1917-1918 season, held on May 9, by the Capital Traction Company section, No. 8, George E. Hamilton, president of the company, addressed the members and summarized the activities of the company's organization in Liberty Loan campaigns, Red Cross activities and the sale of thrift stamps. It was stated that in the two last Liberty Loan drives 505 individual subscriptions had been made from the ranks of the company for a total of \$73,050, and that, including the company's investment of its reserve funds, in all three loans a total of \$403,000 had been subscribed, exclusive of the individual subscriptions to the first loan of which no record was made. Red Cross memberships to the number of 375 were obtained in the campaign last December, and approximately \$3,500 worth of thrift stamps sold. Eighty-nine men from the ranks of the company have entered the army or navy. After referring to what had been done Mr. Hamilton stated that although much had been accomplished, there was still a great deal to do, and he urged every member of the section to become a missionary to see that everyone understood the crisis the country is facing and put his full energies to the task in hand to the end that a successful termination may be reached in the quickest possible time.

The meeting was made the occasion of a celebration in honor of William E. Graham, foreman of the paint shop of the company, who is rounding out fifty years in the service of the company. Mr. Graham entered the employ of the Washington & Georgetown Railroad on June 18, 1868, about five years after the organization of that company which was the first street railway in the city of Washington. Mr. Hamilton paid a glowing tribute to Mr. Graham and presented him, on behalf of the company, with a check for \$250, and on behalf of his fellow workers Mr. Graham was presented with a chest of silver bearing a suitable inscription.

The section had as its guests about twelve British sailors now in this country, and several of them contributed to the entertainment with songs. British official motion picture films, taken during the retreat of the Germans at the battle of Arras, were shown and gave those present a vivid picture of what modern war means. President Elon von Culin presided, and 165 members and guests were present.

The next meeting of the Capital Traction Company section will be held on Oct. 10, 1918.



## Brake Slack Adjusters Assist in Producing Needed Economy

**Automatic Adjustment of Brakes Reduces Maintenance Costs and Produces Safer Operation**

**A**FTER a series of trials and careful investigation, the Brooklyn Rapid Transit System recently ordered 220 sets of Gould type slack adjusters for use under cars equipped with Peckham 14-D5 trucks. Air-brake engineers have recognized for a long time the desirability of using some kind of slack adjuster as a means for obtaining maximum reliability and efficiency of the braking system by providing uniform piston travel. The Gould slack adjuster is operated by either hand or air brake application and has resulted from many years of development and experimentation. During this time many details of construction have been tried out and discarded as being unsuitable for the severe conditions of surface car operation. The present type of adjuster is designed to take the place of the bottom brake rod connection between the live and dead levers attached to the brake beam. This location has been chosen as it has been proved that any slack resulting from brakeshoe, fulcrum or pin wear can be more effectively and more quickly taken up at this point.

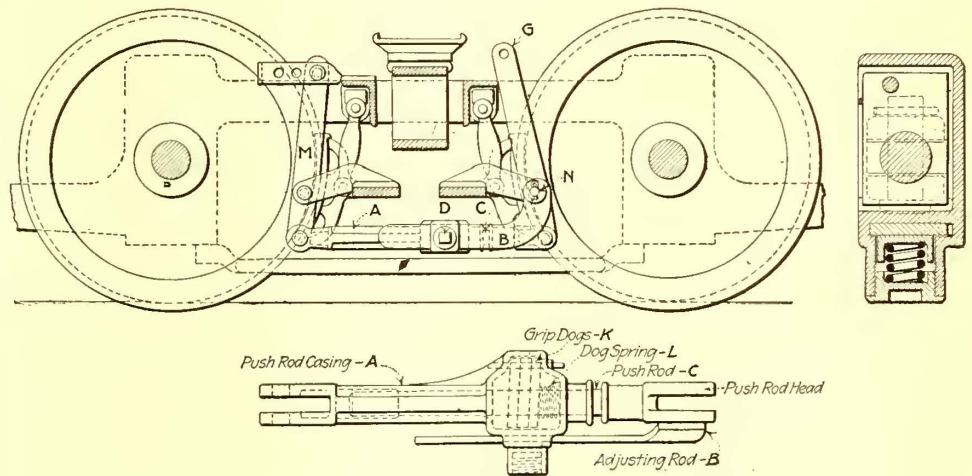
The operation of the Gould type adjuster will be best understood by referring to the accompanying illustration which shows the adjuster as applied to the trucks of an electric car. In applying the brake the live lever *G* moves to the right, forcing the brakeshoes on this side against the wheels. At the same time the bottom rod *C* and the casing *A* of the slack adjuster are moved toward the left. The push-rod casing *A* is attached to the lower end of the dead lever *M* and its movement brings the brakeshoes on the left side tight up against the wheels. Should wear occur in the brakeshoes or wheels, the adjusting rod *B* attached to the brake-beam fulcrum of the live lever moves to the right to the extent of the lost motion in the slot at *N*. If the brakeshoe clearance exceeds this amount, the adjusting rod *B* which is held by a friction spring and shoe, is moved to the right. This friction will then be overcome and the push-rod casing *A* will move to the left to the extent that this movement exceeds the normal brakeshoe clearance provided in the slot *N*.

When the brakes are released, the action of the release spring, not shown, and the weight of the brake beam cause the shoes to fall away from the wheels. The lost motion in the connection at *N* is taken up, which provides the necessary brakeshoe clearance. The brake beam and shoes are now held in suspension by the friction of the adjusting rod *B*, and any further movement of the live lever caused by the force of the release spring will cause the push rod *C* to move to the right through the dogs *K*, which are held in the locked position by the

spring *L*. These dogs permit movement of the push rod through them to the right, but grip the rod firmly and prevent movement toward the left. The push rod is thus drawn through the grip dogs the same amount that the excess travel in the brake rigging caused the friction clamp to slide on the adjusting rod as the brakes were applied and on the next application of the brakes normal movement of the live lever will prevail until such a time as the pins, shoes and wheels commence to wear, when the action will be again repeated automatically.

The holes through the grip dogs are slightly larger than the push rod so the rod passes freely through them when they are at right angles to it, but it is locked firmly against movement in the opposite direction due to the lever action of the dogs. Both the push rod and the dogs are made of high-grade steel so the wear is scarcely discernible after years of service. The spring *L* serves to hold the dogs in the locked position and prevents rattling of parts.

To release the slack adjusters it is necessary to insert a bolt or chisel behind the dogs and move them to the



DETAILS OF THE GOULD TYPE SLACK ADJUSTER AS APPLIED TO AN ELECTRIC CAR TRUCK

right as far as they will go. The operator can then move the brake beams and shoes away from the wheels by placing a bar behind the beam and new shoes can be readily inserted. After the shoes have been replaced a single application of the brakes takes up all excessive slack and provides the correct adjustment automatically. The car is then ready for operation.

A type of Gould slack adjuster for use on locomotive tenders, freight cars and passenger cars has a release spring as part of the adjuster, and an unlocking lever is provided for unlocking the grip dogs. The pressing in of this lever forces the dogs to an upright position and permits the push rod to slide easily and give the space necessary to replace the shoes. No tools are required.

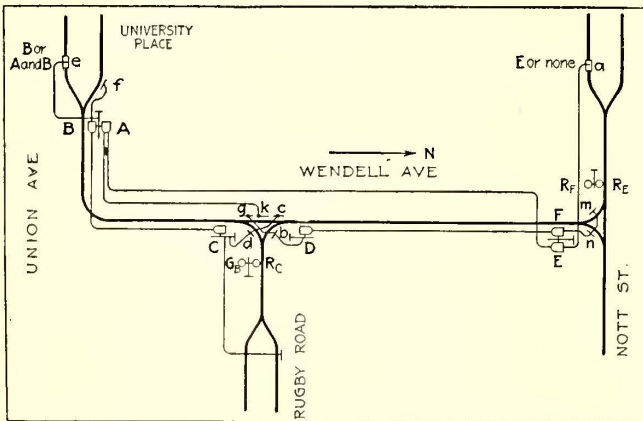
The following are some of the advantages claimed for this type of slack adjuster: (1) Water, snow, ice and rust do not interfere with its operation. (2) Slack adjustment and replacement of worn shoes can be made quickly and without necessity of placing cars over a pit. (3) Costs are reduced by obtaining more mileage from shoes and the wheels, and by requiring less time for making brake adjustments and replacements. (4) Econ-



omy is obtained in operation of the cars by using less air and power and by reducing the number of accidents. (5) Comfort to the traveling public is increased by providing smoother, safer and more rapid operation. (6) The human element is eliminated by having automatic adjustment of brakes, and a cheaper class of labor can be used for making brake adjustments. (7) These adjusters can be substituted for the turnbuckles in the brake rigging and they automatically do the work of the turnbuckle.

### Automatic Signals on the Schenectady Railway

THE Schenectady Railway has recently completed an installation of automatic signals on its single track on Union and Wendell Avenues, from University Place to Nott Street. The signals are Nachod automatic known as Type MD, having normal closed hold-clear circuits giving indications by lights and disks. They are operated and lighted from the trolley power and the entire signal relay, both magnets and switch contacts,



SIGNAL LAYOUT FOR SCHENECTADY RAILWAY

is immersed in oil. The trolley contactor is of the flexible wiping type without moving parts.

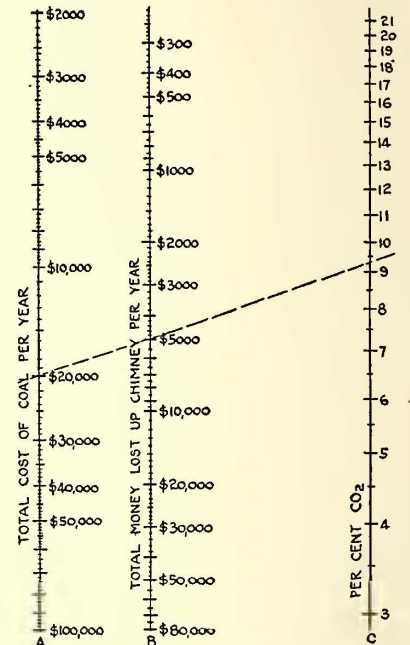
The accompanying diagram shows the signal locations and their connections. The object of the layout is to block opposing movements respectively through a long block, *AE*, and also through a short block, *AC*, which is included within the long block, to permit following movements through each of these blocks, to permit opposing movements between the long and the short routes as far as the limits *C*, of the common track, and to prevent meeting on the long route except at the ends *A* and *E* of the long block. The special features of the layout are that contactor *e* when traversed with power will set two blocks of signals, and without power but one block. When traversed with power, contactor *a* will set one block, and without power will not affect the signals. The preliminary contactor located at the double track on Rugby Road will set the opposing signal *B* at stop as soon as the car starts to leave the double track and before it gets to the main single track block *CB*, but this block will also be completely controlled by contactor *d* or *c*.

The signals were furnished by the Nachod Signal Company, Inc., Louisville, Ky., and were installed by the railway company under the supervision of the signal company.

### High Carbon Dioxide Percentage Indicates Good Boiler Room Operation

THE accompanying chart gives a ready means of determining the relation of percentage of carbon dioxide ( $CO_2$ ) and operating economy. The chart connects percentage of  $CO_2$ , total annual cost of coal and total annual heat loss up the chimney. When a straight edge, represented by a broken line in the diagram, is laid across the chart through points selected on two of the lines, the corresponding value of the other quantity can be found by the intersection of the straight edge and the third line. For example, if \$20,000 is spent per year for coal burned in the furnace whose average  $CO_2$  registers 9.3 per cent then the approximate yearly loss is \$5,000.

The object of this chart is to show that a high percentage of  $CO_2$  is most desirable. To be sure even where the  $CO_2$  is as high as 21 per cent, the theoretical maximum, there is a loss because in the average power plant the flue gases leaving the boiler have a temperature of 500 deg. or 600 deg. Fahr.



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CHART SHOWING RELATION OF  $CO_2$  IN FLUE GASES AND ANNUAL CHIMNEY LOSS IN POWER PLANT

This chart is based on a flue-gas temperature of 600 deg. Fahr. and an outside air temperature of 60 deg. Fahr. Where the flue-gas temperature is higher or the outside air temperature is lower the money loss will be correspondingly increased. On the other hand, with a higher outside air temperature and a lower flue-gas temperature, the money loss is proportionately decreased. It has been assumed that the coal used has a heat value of 14,500 B.t.u. per pound of combustible. The chart was prepared by the Uehling Instrument Company, New York City.

### Tie Tampers Help Solve Labor Problem

G. W. VAUGHAN, engineer maintenance of way, New York Central Railroad, presented a paper on tie tampers before the New York Railroad Club at its meeting on May 17. The Imperial tie tampers, as used by the New York Central Railroad, were described. Due to the present shortage of labor a foreman together with two men and a tamping outfit have been doing the work previously done by a gang of ten men. The outfit is left out on the line and is shifted by a work train crew each morning or night.

Comparison of costs for tamping by hand and with machines were given. These showed a substantial saving in favor of machine tamping.



# News of the Electric Railways

TRAFFIC AND TRANSPORTATION

FINANCIAL AND CORPORATE • PERSONAL MENTION • CONSTRUCTION NEWS

## Mayor of Toledo Questioned Interrogated in Connection With the Injunction Preventing the City from Interfering With Fare Raise

Testifying in the Federal District Court at Toledo, Ohio, on May 17, Mayor Cornell Schreiber of that city disclaimed all responsibility for the so-called "Street Railway Commission" and said that he had not read its report, filed with him some time ago, except to glance at an occasional statement. Judge J. M. Killits agreed with him that the commission is not an official municipal body and that the Mayor is under no obligations to father its plan.

### MAYOR DISCLAIMS KNOWLEDGE

This was brought out in a hearing on the injunction suit recently filed to restrain the city from interfering with the rate of fare charged by the Toledo Railways & Light Company, in which a temporary order was granted in favor of the company. Attorneys had attempted to have the Mayor identify a copy of the commission's report, but he insisted that he knew nothing about its contents and refused to comply with the request. The court upheld him.

Mayor Schreiber was also sustained in his refusal to answer questions as to what he had done toward solving the local railway dispute, as this matter is in the hands of the City Council. He had made no arrangements to keep the cars in operation and had prepared no papers looking to a receivership, had labor trouble occurred.

### TESTIMONY ABOUT COMPANY RECORDS

John J. Higgins, commissioner of city accounts, gave some interesting information in regard to the company's records. Taking into consideration the decrease in the number of passengers for December, 1917, and January and February, 1918, as compared with the same period a year before, amounting to 8.2 per cent, and estimating the gross operating revenue on the decreased number of passengers the coming year at a rate of fare of eleven tickets for 50 cents and cash fare of 5 cents, this revenue would be within \$2,000 of the gross operating revenue for the entire calendar year of 1917. On this basis, he said, any increased wages paid the men would be a reduction of the company's return on its investment. The rate of eleven tickets for 50 cents and 5 cents cash fare would not provide the company with any additional money.

Mayor Schreiber, who had said that this was the only increase in the rate of fare he would approve, and Director of Law Emery argued that the earnings

of the power department should be figured with the total earnings. The company objected to this on the ground that it was a separate department.

Judge Killits intimated that there should be some consideration of the possible return on the investment, but Mayor Schreiber said that his idea was that an increase should be made only for the purpose of paying the men higher wages. He believed it could be shown the company now paid more than 6 per cent on the investment.

### JUDGE REBUKES THE MAYOR

At the session on the previous day Mayor Schreiber said the company had been paying interest on \$15,000,000 bonds, while it was on the tax duplicate for \$11,000,000. Judge Killits informed him that this was an ill-advised statement—an appeal that was causing all the delay in arriving at a settlement of the railway controversy.

The court made it plain that there was no desire on his part to fix a rate of fare, but that he felt perfectly capable of doing so if such a step became necessary. That was a function that should be performed by Council, but apparently this body had not seen fit to take the matter into consideration.

In speaking of the attitude of the employees, Mayor Schreiber said that they were under contract and for that reason he did not think they were entitled to as great an increase in wages as they had asked. He did believe, however, that some plan should be formulated to give living wages.

He believed the business of the company would be increased by the influx of people to work in the war industries and that at the end of the year the records would show a different story from the one shown at the hearing.

## Government Takes S. P. Electric Lines

The Federal Railroad Administration on May 10 decided that the electric lines of the Southern Pacific Company in Alameda County, California, are a part and parcel of the Southern Pacific System and as such are under federal control. A telegram to the Railroad Commission from counsel to Director General McAdoo read:

"Our investigation shows that the electric lines at San Francisco, Oakland, Berkeley and Alameda are part and parcel of the Southern Pacific System and as such are under federal control."

It is expected that this action of the government will result in the dismissal by the Railroad Commission of the application of the company for increased fares for these lines on account of lack of jurisdiction under the new order.

## Report on Canadian Road

### Plans to Abandon Part of London & Lake Erie and Equip Rest With 1500 Volts Direct Current

The City Council of London, Ont., has received from Sir Adam Beck, chairman of the Hydroelectric Power Commission of Ontario, a valuation and report on the London & Lake Erie Railway, operating a 28-mile route between London and Port Stanley.

The company has been in financial difficulties since the city of London took over from the private lessees, and electrified its own railroad, between London and Port Stanley in 1915. The city road had been a failure under fifty years of steam operation, while the electric had prospered in recent years.

### OFFER TO SELL ROAD

G. B. Wood, Toronto, president of the traction company, last summer called a meeting of representatives of the municipalities his line traverses and stated that the company could no longer hold out in competition with the London & Port Stanley Railroad, which had been rehabilitated at a cost of more than \$1,000,000, and which gave a high-speed service over a shorter route. The negotiations brought no result and London was recently offered the traction line by its owners, who asked \$450,000, an amount representing one-half the bonded indebtedness of the company. Later Sir Adam, at whose suggestion the London & Port Stanley Railroad was electrified, was asked to have his engineers report on the value of the line, and on a scheme to operate it in conjunction with the London & Port Stanley Railroad.

Sir Adam now reports that the physical value of the company including lands, buildings, materials, equipment, etc., was \$262,164 on April 30.

### ABANDONMENT PLAN OUTLINED

His engineers worked out a scheme to abandon, scrap and sell the right-of-way for a stretch of approximately 9 miles from a point north of St. Thomas through that city to Port Stanley. The two railways closely parallel each other between St. Thomas and Port Stanley. He would sell the company's power rolling stock, and with the proceeds extend the line to connect with the London & Port Stanley Railroad north of St. Thomas, and he would also connect the London terminals of the two railways. He would refit the road to operate on 1500-volt direct current as does the London & Port Stanley Railroad and would purchase new cars.

The report is to be considered by the City Council soon. The company has not commented on Sir Adam's report.



## War Labor Board Announces Rules

### Local Cases Heard by Sub-Committees—Board Itself to Grant Hearings Only When These Fail to Settle the Controversy

After thorough consideration of the problems to be met in the operation of the National War Labor Board's machinery for the adjudication of industrial controversies, the board on May 14 agreed upon a plan of procedure and method to be followed in all cases. This plan provides for the appointment of sub-committees composed of two members to act for the board in every local controversy, and the appointment of permanent local committees in cities and districts to act in cases therein arising, and also comprehends a method of investigating industrial disputes by trained field agents sent into territories by the board from Washington. It lays down the method to be followed by persons desiring to bring a condition to the attention of the board.

#### HEARING BY THE BOARD ITSELF

Under the form of procedure established, the board itself will sit in hearing upon cases only when its sections, or sub-committees, or local committees find it impossible to settle a controversy. In such cases the board will sit as a board of arbitration, decide the controversy, and make an award.

In compliance with the direction of the President's proclamation of April 8, the board will hear appeals in the following cases:

1. Where the principles established by him in such proclamation have been violated.
2. Where an award made by a board has not been put into effect, or where the employees have refused to accept or abide by such award.
3. To determine questions of jurisdiction as between government boards.

#### FULL TEXT OF THE DECISION

The full text of the decision of May 14 follows:

1. Any person desiring to bring before the National War Labor Board an issue between employer and employees, of which the board has cognizance, shall deliver to the secretary of the board a written statement, signed by him, with his proper post-office address at his home and in Washington. The statement shall contain a brief description of the grievance and the names of the persons or corporations against whom he complains, with their post-office address.

2. Where an employer and employees both desire to submit a controversy to the board, they shall sign a short joint statement of the issue between them, with their respective post-office addresses, and request the action of the board. They shall deliver this signed statement to the secretary of the board.

3. Controversies in which the Secretary of Labor invokes the action of the board, together with the documents transmitted by him, shall be delivered to the secretary of the board.

4. Such complaints, submissions, and references by the Secretary of Labor shall be received by the secretary of the board and filed in his office, and indorsed with the date of filing.

5. The secretary of the board shall keep one docket for the filing of all complaints, submissions, and references, and shall number them on the docket in the order in which they are received and filed. Thereafter the cases shall be referred to by such number.

6. Where the complaint or submission filed shall show clearly that another board than this has primary jurisdiction therein, the secretary is authorized to direct the proper reference, and to advise the party or parties initiating the proceeding of such reference. At the next session of the board the secretary shall advise the board of his disposition thereof.

7. The secretary of the board shall digest all cases presented and bring them to the prompt attention of the board for its action.

#### ORGANIZATION OF THE BOARD

1. Two members of the board, one from the employers' side and one from the employees' side, shall be appointed to act for the board in respect to every local controversy, the members to be named by the joint chairmen at the instance of the respective groups of the board. These members shall be called a section of the board, and shall hear and adjust cases assigned to them. If they cannot effect any adjustment, they shall summarize and analyze the facts and present the same to the board with their recommendations.

2. The secretary shall select trained and experienced men of neutral attitude to act as examiners, to accompany the sections, and to assist them in the discharge of their duty by investigation, digest of evidence, and in other proper ways.

3. The national board may appoint permanent local committees in any city or district to act in cases therein arising. In the selection of such local committees, recommendations will be received by the national board from associations of employers and from the central labor body of the city or district and other properly interested groups. Sections of the board are authorized to appoint temporary local committees where permanent local committees have not been appointed by the board.

4. Two special field representatives may be selected by the secretary from names submitted by the joint chairmen to make a joint investigation of any complaint for the purpose of ascertaining the complete facts without the intervention of sections.

#### ARBITRATION

1. When the board, after due effort of its own, through sections, local com-

mittees, or otherwise, finds it impossible to settle a controversy, the board shall then sit as a board of arbitration, decide the controversy, and make an award, if it can reach a unanimous conclusion. If it cannot do this, then it shall select an umpire, as provided, who shall sit with the board, review the issues, and render his award.

Appeals will not be heard by the National War Labor Board from the decisions of regularly constituted boards of appeal, nor from any other board to revise findings of fact.

#### M. O. Inquiry About June 1

The groundwork of the investigation of the question of municipal ownership in New York State, to be made by the legislative commission headed by Senator George F. Argetsinger of Monroe, virtually has been completed and it is expected that the commission will commence its real work about June 1.

In an effort to facilitate this inquiry Senator Elon R. Brown has completed an analysis of the financial condition of the cities which will be the basis of the investigation. This analysis was made after a careful study of the real estate values, assessment and debt incurring capacity of the municipalities and is designed to establish the reasonableness of the contention that the financial burden that would be cast upon cities taking over public utilities would lead to bankruptcy.

After Mayor Hylan of New York City had made his appearance before the Legislature and advocated the enactment of the Wagner-Donohue municipal ownership bill, Senator Brown persuaded the Senate to defer action upon the measure and caused the appointment of a legislative commission which will look into the whole problem and report to the next Legislature.

#### Chicago Men Want Increase

Members of the trainmen's unions of the Chicago Surface Lines and the Elevated Railways took action recently looking toward an increase in wages of 15 cents an hour over the present scale. Resolutions to this effect were indorsed at a meeting of the employees on May 16. It was decided to make the request first to the company officials, and failing in relief there to take up the matter with the Mayor and City Council and if necessary with the United States War Labor Board.

The wage scale for conductor, and motormen of the surface lines now ranges from 30 to 39 cents an hour, the maximum being reached after four years. The new scale would give a maximum of 54 cents an hour. On the elevated lines the conductors have been getting 34 cents, and the motormen from 35 to 41 cents. Both contracts were made last June and were intended to continue in effect for three years. Officials of the unions contend that the agreement should be disregarded by both sides and a new wage scale arranged more in accord with the increased cost of living.



## Boston Relief Bill Signed

Upon Acceptance by Stockholders the Property Will Pass Under the Control of Public Trustees

The bill placing the control of the Boston (Mass.) Elevated Railway in the hands of a board of five public trustees, to be appointed by the Governor, was passed by the State Senate on May 21 and signed by Governor McCall on May 22. Under the terms of this act the trustees for ten years will have power to regulate service and maintain a flexible fare system without any supervision from State regulatory bodies.

It is provided that the company shall raise \$3,000,000 by the sale of preferred stock, \$1,000,000 of the proceeds to be used as a reserve fund for fare regulation. The State will have the option of buying the property at any time by assuming the liabilities and reimbursing stockholders for the amount paid in. The property can be returned from public to private management at the end of the ten-year period, or thereafter upon two years' notice by legislation.

The act is to become effective upon its acceptance by the holders of not less than a majority of all the stock of the Boston Elevated Railway and of the leased West End Street Railway, and also upon the filing of a certificate that the entire \$3,000,000 above mentioned has been subscribed for and at least 30 per cent paid in cash by each subscriber, and that no dividends have been declared or paid upon common stock since the passage of the act.

The principal terms of the measure and the discussion that followed consideration of the bill were reviewed in the *ELECTRIC RAILWAY JOURNAL* for April 20, page 778, and May 11, page 928.

## City Wins Bridge Suit

The city of Seattle has won its suit against the Puget Sound Traction, Light & Power Company to collect \$60,917 as the company's share of the cost of constructing the Fremont Avenue bridge. The suit was heard before Judge Calvin S. Hall, in the King County Superior Court at Seattle. The jury also returned a special finding that the company was not entitled to damages for the removal of the Stone Way bridge.

In July last the traction company filed a counter claim for \$210,000, alleging this to be the amount of damages sustained by the company as the result of the removal of the Stone Way bridge. The jury disallowed this claim and upheld the city in all of its contentions. The Stone Way bridge was ordered out by the United States Engineer's office and was demolished after the Fremont bridge was completed and ready for traffic.

As a result of the verdict, the company must pay the city of Seattle not only \$60,917, but interest on that amount from June 15, 1917, and \$333 a month as the company's share of the cost of maintaining and operating the

bridge. A price of 1 cent a kilowatt-hour was allowed the city for current used on the bridge by the company in operating its cars since June 15, 1917.

## Increase in Pay in Salt Lake

The board of arbitration appointed to consider the question of wages for the employees of the Utah Light & Traction Company, Salt Lake City, Utah, has reported its findings. The award will amount to about \$89,000 additional a year in the wages of trainmen, carhouse men and those in the engineering departments. The new scale for trainmen dating from May 1 is 34 cents an hour for the first year; 39 cents an hour the second year, and 42 cents an hour thereafter. The scale which has been in force called for 28 cents an hour the first year, 34 cents an hour the second year and 37 cents an hour thereafter. In its finding the board said:

"We have arrived at our conclusions as to the scale of wages entirely upon the basis of what we deem fair and just to them and not at all upon the ability of the company to pay these wages.

"The increase in wages allowed by us, amounting to about \$89,000 per annum, is merely added to a deficit now existing, and which must continue to mount up, resulting in complete insolvency unless relief shall be obtained. We direct attention to this fact in order to explain the suggestion that the company make immediate application to the Public Utilities Commission for the relief to which it is entitled.

"We venture to urge upon the Public Utilities Commission such action as will give prompt and speedy relief to the company through the exercise of any and every economy of operation which can be devised, and if such economies prove inadequate, as we believe they will, to furnish the money needed to pay the increased wages which we recommend, then that such further relief be granted as may be necessary through an increase of rates."

## Governor Vetoes City Bus Bill

Governor Whitman of New York has vetoed the Rowe bill permitting Buffalo to establish municipally owned and operated jitney bus lines. The Governor said:

"This bill is disapproved for the reasons set forth in the report of the Public Service Commission for the Second District, to whom the bill was referred, which report is as follows:

"The matter has been considered by the commission and it is our impression that the amendment seems to be so detailed and complete as to raise the question whether it does not abrogate the jurisdiction of this commission under sections 25 and 26 of the transportation corporations law as amended by chapter 667, laws of 1915. We think it would be mischievous to authorize cities to license bus lines which would not be required to procure certificates of convenience and necessity from the commission. The reasons are obvious."

## Strike in Philadelphia

Attempt to Embarrass the Philadelphia Rapid Transit Fails Miserably as an Objective to Union Domination

The very small disloyal element among the employees of the Philadelphia (Pa.) Rapid Transit Company called a strike on May 16. That this element existed was well known to the management. In fact, the company referred to professional trouble makers in the statement which it made acknowledging the petition of the employees asking for an increased wage and requesting the company to petition Councils for an increase in fare to make the wage advance possible.

### ONLY 700 MEN OUT

Only about sixteen of the eighty lines in the city were affected by the strike and none of these suffered seriously. Representatives of the men who went out claimed that 3400 men had quit. The police estimated the number of men on strike at about 1000. The company said that only 700 men were involved.

The leaders of the men who are on strike describe the movement as a self-imposed lock-out because the company refused to allow the men to wear union buttons and they decided not to work without them.

The whole affair appears to be an attempt to make capital out of the present extraordinary industrial and labor condition and seriously to embarrass the company at a time which appeared to the malcontents to be most propitious. Even the figures of the men who went out as to their own number bear witness to the need of their cause being bolstered up from sources outside.

The controversy has been reported upon to the Department of Labor by E. E. Greenwalt, commissioner of conciliation. He said that he had exhausted every effort to persuade the company to agree to some form of compromise with the men.

### NO COMPROMISE

That there would be no compromise of any kind was indicated by the determination of the company, as announced previously, to continue the existing co-operative plan as at present administered until two-thirds of the men ask for a change. The co-operative plan has been in use for seven years and its scope and workings have been explained in detail to the public authorities. The outstanding feature of this plan is that the trainmen are represented at all times by a committee of their own choosing that can take up with the management all matters requiring discussion or adjustment.

## Iowa Meeting Postponed

The meeting of the Iowa Electric Railway Association, set to be held in Des Moines on May 23, has been postponed to May 31. A meeting of the Iowa section of the N. E. L. A. was set for the same time.



## News Notes

**More Transit Lines to Open.**—The Public Service Commission for the First District of New York has announced that it had fixed June 15 as the date for the opening of the new Lexington and Seventh Avenue lines of the dual subway system in New York City.

**Southern Road Increases Wages.**—Increases in pay of from 2 to 5 cents an hour for motormen and conductors of the Southern Public Utilities Company, which operates in Greenville, Anderson, Winston-Salem and numerous other cities in the Carolinas, was announced on May 8. The increase, effective from May 1, will depend on length of service.

**National Research Council to Be Made Permanent.**—In an order issued on May 11 President Wilson has made the National Research Council a permanent body. This council was organized in 1916 at the request of the President by the National Academy of Sciences to organize research and secure co-operation of military and civilian agencies in the solution of military problems.

**Men and Company in Conference in St. Louis.**—A general agreement between the United Railways, St. Louis, Mo., and its employees is expected without delay, it was announced on May 15 following a conference in the office of Bruce Cameron, superintendent of transportation, who is acting for Richard McCulloch, president and general manager, during his absence from the city.

**Increase in Wages in Reading.**—The Reading Transit & Light Company, Reading, Pa., has increased the wages of its 600 motormen and conductors in Reading, Norristown and Lebanon 1 cent an hour, to take effect on June 1. This is the second increase in four months and the sixth since April, 1916. The wages will range from 28 to 31 cents an hour, depending upon length of service.

**Twin City Wage Increase.**—For the second time within eight months the Twin City Rapid Transit Company, Minneapolis, Minn., on May 16, announced increases in the wages of its employees. The increases, effective on June 1, mean that each motorman and conductor will get from \$7 to \$10 a month more than he is now receiving. The increase will add \$250,000 a year to the company for platform wages.

**Statisticians and Accountants Needed.**—The United States Civil Service Commission announces that the bureau of ordnance of the War Department is in urgent need of statistical experts at \$1,800 to \$4,500 a year; statisticians at \$1,800 a year, and clerks qualified in

statistics, clerks qualified in accounting, and clerks qualified in business administration at \$1,000 to \$1,800 a year. These examinations are open to both men and women, except the examination for statistical expert, which is open only to men.

**Government Employment Agency Opens.**—Within a few days the largest employment agency in America operated jointly by the federal and state governments will open for business at 116 North Dearborn Street, Chicago, Ill. Its purpose will be to serve free every employer needing help and every employee seeking work. Recently the United States Employment Service took over the handling of all railroad labor for the Western territory, which includes the district west of Pittsburgh and Buffalo.

**Referendum Asked on Franchise Settlement Terms.**—A petition bearing 7911 names, asking for a referendum on the United Railways' settlement bill enacted by the Aldermen of St. Louis, Mo., a month ago has been filed with the Election Board by the Citizens' Referendum League. The new charter provides that if a petition of 2 per cent of the registered vote at the last mayoralty election is filed within thirty days after the approval of an ordinance, it shall be suspended for forty days to permit the filing of supplementary proceedings.

**M. G. Chace Rhode Island Fuel Administrator.**—United States Fuel Administrator Garfield has announced the appointment, with the approval of the President, of Malcolm G. Chace, Boston and Providence, as fuel administrator for Rhode Island, vice George H. Holmes, who resigned for business reasons. Mr. Chace is a son of the chancellor of Brown University. He is a resident of Boston, but his business firm, Chace & Harriman, engaged in the promotion and conduct of public utilities, has its headquarters at Providence. R. I.

**Wage Board to Meet in Chicago.**—Hearings in the wage controversies between the electric railway operatives of Detroit, Mich., and Cleveland, Ohio, and the respective employing companies, which were scheduled to be held in the two cities on May 27 and 28, will instead be held in Chicago on May 27, according to a rearrangement of the board's schedule. These particular controversies are in charge of William H. Taft and Frank P. Walsh, joint chairmen of the board, acting as a section of the body. The entire membership of the board will meet in Chicago, however, for the consideration of, and action upon, such business as will have been presented.

**E. F. C. Transportation Division in Philadelphia.**—The Emergency Fleet Corporation will start moving to Philadelphia, Pa., on June 1. It is expected that within four days all the divisions will have been moved. The Passenger Transportation & Housing Division will precede all others to Philadelphia. This division will move on May 25. This was decided upon in order that the division

may assist in the locating of the personnel of the corporation in suitable quarters in Philadelphia. Employees of the Passenger Transportation & Housing Division have been notified that they will be governed accordingly. This is the division of which A. Merritt Taylor is director.

**New Officers of Pacific Claim Agents.**—The Pacific Claim Agents' Association held its annual convention in Portland, Ore., during the week of May 6. The 1919 convention will be held in Oakland, Cal. The following officers were elected for the ensuing year: H. G. Winsor, Tacoma Railway & Power Company, Tacoma, Wash., president; W. H. Moore, San Diego (Cal.) Electric Railway, first vice-president; J. S. Mills, San Francisco-Oakland Terminal Railways, second vice-president; C. A. Blackburn, Butte (Mont.) Electric Railway, third vice-president; B. F. Boynton, Portland Railway, Light & Power Company, Portland, Ore., secretary-treasurer; S. A. Bishop, Los Angeles; J. H. Handlon, San Francisco; A. M. Lee, Seattle; F. J. Lonergan, Portland; Thomas G. Ashton, Spokane, and J. T. Rupli, Seattle, members executive committee.

**Substation and Carhouse Badly Damaged.**—The plant at Thirty-first Street and Lincoln Avenue, Ogden, containing equipment of both the Bamberger Electric Railroad and the Utah Light & Power Company, was damaged by fire recently to the extent of \$500,000, unofficial estimate. A considerable amount of rolling stock, said to include eighteen cars and two locomotives, was also reported to have been damaged. The company has made no definite plans for reconstructing the plant, except to repair the substation. A brick wall will be built on the west side of this station, which formerly was divided from the carhouse by a frame wall. The reconstruction of the carhouse and sheds and the installation of equipment for repairing, painting and the general upkeep of the rolling stock of the company will cost approximately \$100,000.

**New Providence Wage in Effect.**—The new scale of wages accepted by the employees of the Rhode Island Company, Providence, R. I., went into effect on May 18. Under the wage increase, the track men get 35 cents an hour; shop men, pit men, washers and cleaners, 31 to 38 cents an hour; freight house men 27 to 28 cents an hour; breakersdown, 30 cents an hour; freight employees, receiving and delivery clerks 28 cents an hour; line department men, 32.5 to 36.7 cents an hour; power department men, 21.8 to 36 cents an hour; all other clerks, excepting general office clerks, \$1.40 more a week, making the pay \$17.90 to \$19.40; transportation men, excepting platform men, starters, inspectors and information men, 2 cents an hour more. The new schedule for motormen and conductors under the 2-cent raise will be per hour as follows: First six months, 30 cents; second six months, 32 cents; second year, 33 cents; third year, 34 cents; thereafter, 36 cents. On June 1 another cent an hour will be added to the above rate.



# Financial and Corporate

## Business and Costs Both Up Detroit United Railway in 1917 Suffered Loss of Almost 25 Per Cent Net Income

Although the gross operating earnings of the Detroit (Mich.) United Railway for the calendar year 1917 gained \$1,391,270 or 8.6 per cent, this amount was more than offset by the

TABLE I—PASSENGER AND MILEAGE STATISTICS

	1917	1916
Revenue passengers.....	356,208,429	335,599,802
Transfer passengers.....	119,962,125	119,899,355
Employee passengers.....	8,557,264	8,670,561
Total passengers.....	484,727,818	464,169,698
Receipts revenue pass'r ..	\$0.0459	\$0.0450
Receipts per passenger ..	\$0.0537	\$0.0325
Car mileage.....	58,957,941	54,008,437
Earnings per car-mile....	\$0.2956	\$0.2970
Expenses per car-mile....	\$0.2249	\$0.2077
Net earnings per car-mile.	\$0.0707	\$0.0893

rise of \$2,043,988 or 18.2 per cent in operating expenses. As a result the net earnings from operation fell \$652,718 or 13.5 per cent. Other income and deductions from income showed increases, and the net income exhibited a dropping off of \$705,262 or 24.4 per cent.

The same amount was credited to the depreciation reserve as in 1916, \$800,000, but in the last year the dividends were increased from \$843,750 to \$1,118,750, and \$150,000 was credited to a reserve for taxes. The dividend payment in 1917 equaled 4.89 per cent on the capital stock and undivided surplus. The balance transferred to surplus in 1917 was only \$106,780 as compared to \$1,237,042 in the year preceding.

The foregoing figures summarize the business of the Detroit United Railway, the Rapid Railway System, the Sandwich, Windsor & Amherstburg Railway, the Detroit, Monroe & Toledo Short Line Railway and the Detroit, Jackson & Chicago Railway. The full figures are given in the accompanying comparative statement in Table II.

TABLE II—COMPARATIVE INCOME STATEMENT OF DETROIT (MICH.) UNITED RAILWAY FOR 1916 AND 1917

	1917		1916	
	Amount	Per Cent	Amount	Per Cent
Gross earnings from operation:				
Passenger.....	\$16,370,239	93.9	\$15,069,980	93.9
Express.....	1,000,869	5.7	907,771	5.7
Mail.....	11,748	0.1	11,828	0.1
Special car.....	45,083	0.3	47,088	0.3
Total.....	\$17,427,939	100.0	\$16,036,669	100.0
Operating expenses.....	13,259,790	76.1	11,215,802	69.9
Net earnings from operation.....	\$4,168,149	23.9	\$4,820,867	30.1
Other income.....	411,737	2.4	351,334	2.1
Gross income.....	\$4,579,886	26.3	\$5,172,201	32.2
Interest on funded and floating debts and taxes.....	2,404,355	13.8	2,291,409	14.3
Net income.....	\$2,175,530	12.5	\$2,880,792	17.9
Amount credited to depreciation reserve.....	\$800,000	4.6	\$800,000	4.9
Amount credited to reserve for taxes.....	150,000	0.9	.....	.....
Dividends paid.....	1,118,750	6.4	843,750	5.3
Total.....	\$2,068,750	11.9	\$1,643,750	10.2
Balance transferred to surplus.....	\$106,780	0.6	\$1,237,042	7.7

During 1917 the company and its subsidiaries expended \$2,999,220 for additions to property. On Jan. 1, 1917, the depreciation reserve stood credited with \$4,295,627. The balance at the end of 1917 was \$5,114,827.

Passenger and mileage statistics of the system for the last two years are shown in Table I.

## War Finance Board Sworn In

The War Finance Corporation, created by Congress to finance war industries and limit and control investment of capital during the war, was brought officially into existence on May 17 by the swearing in of the directors and officers in the office of the Secretary of the Treasury. The corporation has for its chairman of the board of directors Secretary McAdoo; as vice-chairman and general manager, W. P. G. Harding, governor of the Federal Reserve Board, with Sherman Allen, formerly assistant secretary of the

which is to regulate investment of capital during the war, consists of Charles S. Hamlin, designated as chairman by President Wilson; John Skelton Williams, Controller of the Currency; Frederick A. Delano of the Federal Reserve Board; James B. Brown, John S. Drum, Henry C. Flower, and Frederick H. Goff.

The Capital Issues Committee of the Federal Reserve Board, which went out of existence on May 17 with the organization of the War Finance Corporation, issued on May 22 a final report of its activities during the four months of its organization. The committee passed on applications for the investment of capital to the amount of \$478,458,386, and of this amount for new enterprises it permitted the investment of \$154,102,224. For refunding purposes the committee approved the investment of \$258,664,496.

Of applications considered 192 were from municipalities, sixty-two from public utilities corporations, and 108 from industrial concerns. Of these the committee gave its approval to 140 municipal, sixty public utility, and seventy-seven industrial corporations. Thirty-four municipal applications were disapproved and eighteen curtailed, twenty-four industrial applications

OPERATIONS OF CAPITAL ISSUES COMMITTEE FOR FOUR MONTHS TO MAY 17

	Municipal	Public Utility	Industrial
Number considered.....	192	62	108
Number approved.....	140	60	77
Number disapproved.....	34	2	24
Number curtailed.....	18	0	5
Amount considered.....	\$86,878,512	\$172,069,605	\$219,510,269
Amount disapproved.....	19,791,665	6,000,000	39,900,000
Aggregate approved.....	69,086,847	166,069,605	179,610,269
Less refunding.....	21,392,312	125,860,284	111,411,900
Aggregate new issues.....	45,694,534	40,209,321	68,198,369
New issues last year same period.....	108,952,865	107,504,075	287,754,684
Analysis of new issues approved:			
Amount original applications.....	65,486,199	46,209,321	108,098,369
Amount approved.....	45,694,534	40,209,321	68,198,369
Curtailed effected.....	19,791,665	6,000,000	39,900,000
Analysis of applications informally discouraged:			
Number.....	8	3	6
Amount.....	\$8,915,000	\$7,360,000	\$3,596,000

treasury and now assistant secretary of the Federal Reserve Board, as treasurer and secretary pro tem.

The board of directors, in addition to Messrs. McAdoo and Harding, consists of Clifford M. Leonard, Eugene Meyer, Jr., and Angus W. McLean. The members of the Capital Issues Committee,

were disapproved and five curtailed. By securing postponement for the period of the war, the committee saved from investment \$19,865,000.

## B. R. T. Finance Hearing May 28

The war Finance Corporation has set May 28 as the date for the hearing in Washington on the application of the Brooklyn (N. Y.) Rapid Transit Company for aid in meeting the \$57,735,000 of 5 per cent gold notes which mature on July 1. This fact was announced to the stockholders of the company at a special meeting on May 23 by Col. Timothy S. Williams after unanimous approval of the creation of a \$150,000,000 mortgage had been granted. President Williams said:

"I was in Washington on May 22 for my first conference with the members of the War Finance Corporation, which can aid your company in financing its maturity note issue. As you know, the board of directors has had the matter up with local banking officials and with government authorities, but nothing could be accomplished."



**New York Net Falls**

**Metropolitan Lines for Last Quarter of 1917 Show Increases in Cost of Service**

With an increase of 4,575,453 revenue car-miles, the electric railways in New York City during the last quarter of 1917 secured a gain of \$1,559,629 in railway operating revenues at the cost of a rise of \$1,348,520 in operating expenses, as compared to the same period

actual or imaginary reasons (ranging from dislike of the cent change and the principle of the thing, to need of physical exercise and preference for a neighbor's motor car) ceased to contribute their normal patronage.

"One of the fundamental rate elements is density of traffic and, as is well known, traffic movement is highly sensitive to rate adjustment, especially human traffic which might well be dubbed 'fickle,' so that for a multitude

**Do Your Duty—and More!**

What is one's share of the cost of the war? The Bankers Trust Company, New York, N. Y., has answered this question in a recent pamphlet containing the accompanying table. This table gives a logical basis for determining how much each one should contribute from his income, in the payment of taxes and in the purchase of bonds, so as to bear his equitable share of the cost of the second year of the war.

FINANCIAL SHOWING OF NEW YORK CITY LINES, OCTOBER-DECEMBER, 1917

Company	Revenue Total	Car-Miles Increase	Railway Operating Amount	Operating Revenues * Increase	Operating Expenses * Increase	Railway Taxes	Net Corporate Amount	Income Increase
Hudson & Manhattan Railroad.....	\$2,136,830	\$61,301	\$1,203,290	\$83,979	\$532,585	\$85,160	†\$205,826	†\$38,876
Interborough / Subway Division.....	19,359,369	1,194,307	5,948,125	225,779	2,328,824	569,075		
Brooklyn Rapid Transit System.....	24,087,084	1,257,847	4,811,081	†99,509	2,519,518	375,228	1,724,546	†1,154,568
Manhattan Surface Roads.....	10,884,528	†186,749	7,395,582	88,792	4,714,020	437,839	378,700	†75,611
New York Railways.....	6,854,378	1,275,524	5,013,175	979,699	3,451,875	282,702	†109,934	662,965
Third Avenue (including Kingsbridge)...	1,522,941	343,008	3,020,813	457,004	2,089,220	192,042	5,795	238,302
Bronx Surface Roads.....	4,452,021	392,709	1,018,195	267,016	596,551	41,123	25,290	222,609
Union (including Bronx Traction).....	2,365,156	1,111,753	1,240,427	†12,510	969,307	†22,764	†100,797	394,800
Queens Surface (excluding Brooklyn Rapid Transit).....	2,371,550	†81,954	511,695	†108,393	576,727	18,848	†245,204	†131,29
<b>Grand total.....</b>	<b>\$83,447,529</b>	<b>\$4,575,453</b>	<b>\$26,349,623</b>	<b>\$1,559,629</b>	<b>\$15,331,299</b>	<b>\$2,095,863</b>	<b>\$1,802,810</b>	<b>†\$412,298</b>

\* No deductions for intercompany transactions. † Deficit, or decrease from corresponding period of 1916. †† Balance applicable to adjustment income bonds.

of 1916. After the payment of taxes and contractual and other compulsory deductions from income, the net corporate income showed a loss of \$412,298. The Manhattan and Bronx surface lines showed increases in net, but the Queens surface lines and the rapid transit roads reported decreases. Details are published in the accompanying statement. Under the borough totals for surface railways, only a few of the most important lines are included.

**Portland Earnings Increase**

**Six-Cent Fare in Oregon City Results in Increase in Receipts and Reduction in Expenses**

According to a report submitted to the city council of Portland, Ore., by Edward M. Cousins, public utility expert, the average earnings of the Portland Railway, Light & Power Company for six years ending Dec. 31, 1917, were \$919,548 a quarter. In the last six years (twenty-four quarters) the earnings have exceeded \$1,000,000 only six times, one of which periods was for the last quarter of 1917. The earnings have never before reached or approached within \$100,000 the revenue for the first quarter of 1918, reported now as \$1,125,679. Operating expenses show a decrease of \$67,126 under the previous quarter. Mr. Cousins says:

"The number of passengers handled during the quarter ended March 31, 1918, decreased 480,451. The latter figure indicates the company is sacrificing business for high rates. There has been a heavy increase in volume of floating traffic in the city due to intensive commercial activity, estimated at at least 25 per cent over the preceding quarter, which should have been reflected in the traffic density.

"It will be recalled that the 6-cent fare took effect on Jan. 15, since which time, as a matter of common knowledge, a large number of car riders under normal conditions have, for

reasons best known to the individuals composing the traffic, the density might easily shrink 25 per cent. At a 6-cent rate 17,022,273 passengers would yield a revenue of \$1,021,336. A 25 per cent

The distribution of incomes of \$3,000 and over is based on 1916 income tax returns, and of those below \$3,000 on carefully made estimates. The point particularly to be noticed in a study of

Column I Family Income Group	II Average Family Income	III Percentage Contributable by Each Family	IV Amount Contributable by Each Family	V Number of Families in Group	VI Total Income of Families	VII Total Contributable by Families
Under \$860*	\$910	6.60	\$82	7,288,000*	\$4,701,217,000	\$102,723,000
\$870	1,040	9.90	99	3,590,000	3,051,500,000	294,380,000
911	1,170	10.30	113	3,525,000	3,525,000,000	349,975,000
1,041	1,300	10.80	135	2,737,000	3,016,737,000	309,281,000
1,171	1,430	11.20	151	2,252,000	2,827,500,000	305,370,000
1,301	1,560	11.70	175	1,826,000	2,405,100,000	275,226,000
1,431	1,690	12.20	195	1,502,000	2,403,000,000	280,550,000
1,561	1,820	12.60	220	1,228,000	1,964,800,000	239,460,000
1,691	1,950	13.00	251	1,000,000	1,244,500,000	156,200,000
1,821	2,080	13.50	270	800,000	992,500,000	119,225,000
1,951	2,210	14.00	301	650,000	770,000,000	103,950,000
2,081	2,340	14.50	330	500,000	657,900,000	92,100,000
2,211	2,470	15.00	360	400,000	558,800,000	80,190,000
2,341	2,600	15.50	380	350,000	453,600,000	68,040,000
2,471	2,730	16.00	400	300,000	352,100,000	55,806,000
2,601	2,860	16.50	443	240,000	250,000,000	48,500,000
2,731	2,990	17.00	467	200,000	501,000,000	46,000,000
2,861	3,120	17.50	488	160,000	297,500,000	35,930,000
2,991	3,250	18.00	512	120,000	324,000,000	32,576,000
3,001	3,380	18.50	529	100,000	286,000,000	28,000,000
3,001	3,510	19.00	548	85,000	297,500,000	35,930,000
4,001	3,640	19.50	568	72,000	264,000,000	32,576,000
4,001	3,770	20.00	588	60,000	226,000,000	28,000,000
4,001	3,900	20.50	609	50,000	237,500,000	35,930,000
5,001	4,030	21.00	630	40,000	198,500,000	28,000,000
5,001	4,160	21.50	651	30,000	170,000,000	21,800,000
5,001	4,290	22.00	672	25,000	147,500,000	18,000,000
6,001	4,420	22.50	693	20,000	124,500,000	14,200,000
6,001	4,550	23.00	714	15,000	102,000,000	11,400,000
7,001	4,680	23.50	735	12,000	80,000,000	9,000,000
7,001	4,810	24.00	756	10,000	66,000,000	7,600,000
8,001	4,940	24.50	777	8,000	54,000,000	6,400,000
8,001	5,070	25.00	798	7,000	46,000,000	5,600,000
9,001	5,200	25.50	819	6,000	39,000,000	4,800,000
10,001	5,330	26.00	840	5,000	33,000,000	4,000,000
15,001	5,460	26.50	861	4,000	27,000,000	3,200,000
20,001	5,590	27.00	882	3,000	22,500,000	2,400,000
25,001	5,720	27.50	903	2,500	19,250,000	2,000,000
30,001	5,850	28.00	924	2,000	16,500,000	1,600,000
35,001	5,980	28.50	945	1,500	14,250,000	1,400,000
40,001	6,110	29.00	966	1,200	12,000,000	1,200,000
45,001	6,240	29.50	987	1,000	10,250,000	1,000,000
50,001	6,370	30.00	1,008	800	8,800,000	880,000
55,001	6,500	30.50	1,029	700	7,700,000	770,000
60,001	6,630	31.00	1,050	600	6,800,000	680,000
65,001	6,760	31.50	1,071	500	6,000,000	600,000
70,001	6,890	32.00	1,092	400	5,400,000	540,000
75,001	7,020	32.50	1,113	300	4,900,000	490,000
80,001	7,150	33.00	1,134	250	4,500,000	450,000
85,001	7,280	33.50	1,155	200	4,200,000	420,000
90,001	7,410	34.00	1,176	150	3,900,000	390,000
95,001	7,540	34.50	1,197	120	3,600,000	360,000
100,001	7,670	35.00	1,218	100	3,400,000	340,000
150,001	7,800	35.50	1,239	80	3,200,000	320,000
200,001	7,930	36.00	1,260	70	3,000,000	300,000
250,001	8,060	36.50	1,281	60	2,800,000	280,000
300,001	8,190	37.00	1,302	50	2,600,000	260,000
400,001	8,320	37.50	1,323	40	2,400,000	240,000
500,001	8,450	38.00	1,344	30	2,200,000	220,000
600,001	8,580	38.50	1,365	25	2,000,000	200,000
700,001	8,710	39.00	1,386	20	1,800,000	180,000
800,001	8,840	39.50	1,407	15	1,600,000	160,000
900,001	8,970	40.00	1,428	10	1,400,000	140,000
1,000,001	9,100	40.50	1,449	5	1,200,000	120,000
1,500,001	9,230	41.00	1,470	5	1,100,000	110,000
2,000,001	9,360	41.50	1,491	5	1,000,000	100,000
2,500,001	9,490	42.00	1,512	5	900,000	90,000
3,000,001	9,620	42.50	1,533	5	800,000	80,000
4,000,001	9,750	43.00	1,554	5	700,000	70,000
5,000,001	9,880	43.50	1,575	5	600,000	60,000
and over	10,010	44.00	1,596	10	500,000	50,000

Reported non-taxable incomes not apportioned in reports—50% estimated contributable

FAMILY GROUPS and individuals—their estimated total incomes and ability to contribute

CORPORATIONS and other business enterprises—their estimated total incomes and ability to contribute after dividend distributions

Total estimated National Income and amount realizable therefrom

BANKS—the share of the burden which they probably must carry. This is not the estimated peak load, but a conservative estimate of the average minimum burden

Estimated receipts from direct taxation and bond sales

Estimated receipts from indirect taxes, such as customs, excise taxes, stamp taxes, including sundry receipts

Cost of Second Year of the War estimated

\*This group is largely composed of individuals

HOW TO USE THE TABLE. Find your income in Column I. Multiply this by the percentage contributable, in Column III. The result is the total amount which you should contribute during a year. Deduct the amount which you pay in taxes—the remainder is the amount of Liberty Bonds which you should buy from income during a year

Illustration \$5,000 income Less tax, say \$50 \$10,000 income Less tax, say \$675 \$5,000 x 22.4% = \$1,120 Bonds to be bought \$1,070 \$10,000 x 40% = \$4,000 Bonds to be bought \$3,325

**EACH INDIVIDUAL'S SHARE OF WAR BURDEN**

increase at a 5-cent rate would yield \$1,063,892. "I am satisfied 7,000,000 passengers a month would now be riding on street cars in Portland at a 5-cent fare."

the table is the essentiality of every one's doing his share. While a few rich families have large incomes, 75 per cent of the family income is received by those with incomes less than \$2,500.



# Financial News Notes

**Chicago & Interurban Earnings.**—The operating revenues of the Chicago & Interurban Traction Company, Chicago, Ill., for the year ended Dec. 31, 1917, amounted to \$338,157 as compared to \$333,602 the year before. The operating expenses at \$212,370 and the interest and taxes at \$94,769, however, showed slight increases, so that the net income decreased from \$55,565 in 1916 to \$31,018 in 1917.

**Electric Bond & Share Returns.**—The gross income of the Electric Bond & Share Company, New York, N. Y., for the calendar year 1917 totaled \$3,140,020, and the net income \$2,066,389. The accumulated income, after the payment of \$487,710 in preferred dividends and \$644,888 in common dividends, was \$3,506,204 at the end of the year. The surplus and undivided profit at this time amounted to \$4,393,665.

**Wants to Fund \$182,500 of Notes.**—The Springfield Railway & Light Company, which controls the Springfield Consolidated Railway, has asked authority from the Illinois Public Utilities Commission to issue two lots of 5 per cent gold bonds, one for \$75,500 and the other for \$107,000. The total amount of \$182,500 is needed to pay notes issued by the company since Dec. 31, 1913, representing improvements of a permanent nature.

**Boise Line Overcomes Deficit.**—According to the 1917 report of the controlling companies, the Idaho Power Company and in turn the National Securities Corporation, the gross operating earnings of the Boise Valley Traction Company in 1917 totaled \$334,844 as compared to \$291,404 in 1916. The operating expenses, including taxes, rose from \$215,365 to \$234,474. The decrease in other income was offset by the decrease in fixed charges,

and the balance for 1917 was a net income of \$12,637 as compared to a deficit of \$9,804 the year preceding.

**Sale Under Foreclosure Ordered.**—Supreme Court Justice Greenbaum has appointed Lytleton Fox referee to sell the franchise and other property of the electric railway running from the East Twenty-third Street ferry to the Christopher Street ferry, which has been owned by the Central Crosstown Railroad, New York City. The sale was ordered in the suit by the Guaranty Trust Company, New York, N. Y., to foreclose on a \$3,000,000 mortgage made in 1902 as security for a bond issue. The sum due on the mortgage is \$3,545,434. The date of the sale will be fixed by the referee.

**Lehigh Preferred Dividend Passed.**—The directors of the Lehigh Valley Transit Company, Allentown, Pa., at their meeting on May 16 failed to take action with respect to declaration of the quarterly preferred dividend of 1¼ per cent usually paid early in May. Only 17 per cent of the preferred stock is held outside the Lehigh Power Securities Company treasury. All holders at the time of the recent merger were given opportunity to sell their stock for cash or exchange for securities in the new company. The total issue of Lehigh Valley Transit Company preferred stock is \$4,979,687.

**Carolina Power & Light Gains 16 Per Cent.**—The gross operating earnings of the Carolina Power & Light Company, Raleigh, N. C., and its subsidiaries for the year ended Dec. 31, 1917, totaled \$1,826,303 as compared to \$1,474,948 in the year preceding. The operating expenses, including taxes, rose from \$694,921 to \$927,407, and the net income available for dividends in 1917 was \$484,972 and in 1916 \$351,755. The total number of passengers carried in Raleigh increased from 2,212,162 in 1916 to 2,411,319 in 1917, and those in Asheville increased from 5,165,627 to 5,566,567 in the same period.

**Briefs Filed in Seattle Valuation.**—Figures of \$30,301,404 by the company and \$23,179,692 by the city were contained in briefs filed with the State Public Service Commission of Washing-

ton and Idaho in the Washington Water Power Company valuation case by Attorney Frank T. Post for the company and Corporation Counsel J. M. Geraghty for the city. The valuation of the power company's property is being made prior to the determination of a basis for future rates. Hearings before the joint commissions were commenced last February and concluded in April. The case was referred to in the ELECTRIC RAILWAY JOURNAL of May 18, page 985.

**Another "Dan Patch" Installment Paid.**—Representatives of the Dan Patch Patrons' Association have paid C. T. Jaffray, chairman of the committee representing the holders of the bonds of the Minneapolis, Rochester & Dubuque Electric Traction Company (the Dan Patch Air Line), \$25,000, the second payment on the electric road. The next payment will be made on July 11. A payment of \$10,000 on April 12 resulted in the dismantling order of the Federal Court being held in abeyance. Members of the protective association will pay \$225,000 for the part of the road for which they are under contract and will gain title to the property when the payments are completed.

**Higher Power Earnings for Kansas Railway.**—The Missouri Public Service Commission has granted, in the arbitration requested by the Kansas City Railways and the Kansas City Light & Power Company, an increase in the rate paid by the light company for current from the railway. The rate was formerly 1 cent per kilowatt-hour, but the new rates are \$15 per kilowatt of maximum demand and 1.14 cents per kilowatt-hour. This will mean an increase of nearly \$500,000 a year in the sum received by the railway. In addition, the commission suggests the payment of \$107,481 to the railway to cover the balance up to Jan. 1, 1918, for unadjusted differences in payment for current since the companies were re-organized. The stated sum is the amount to be paid after deducting about \$72,000 which the railway owes the light company for fuel oil. The light company is now asking the Public Service Commission for a readjustment of its rates charged to the consumer.

## Electric Railway Monthly Earnings

†† ATLANTIC SHORE RAILWAY, SANFORD, ME.					
Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net. Income
1 m., Apr. '18	\$14,284	\$10,544	\$3,740	\$473	\$3,267
1 m., Apr. '17	27,158	23,619	3,539	1,650	2,889
CITIES SERVICE COMPANY, NEW YORK, N. Y.					
1 m., Apr. '18	\$1,885,750	\$37,254	\$1,848,496	\$212	\$1,848,284
1 m., Apr. '17	1,609,012	30,887	1,578,125	225	1,577,900
12 m., Apr. '18	20,127,716	380,001	19,747,715	2,635	19,745,080
12 m., Apr. '17	14,361,932	278,810	14,083,122	86,511	13,996,611
CUMBERLAND COUNTY POWER & LIGHT COMPANY, PORTLAND, ME.					
1 m., Mar., '18	\$245,270	*\$179,104	\$66,166	\$73,881	†\$7,175
1 m., Mar., '17	236,387	*166,137	70,250	66,629	3,621
12 m., Mar., '18	3,077,458	*2,139,882	937,576	836,718	100,858
12 m., Mar., '17	2,938,421	*1,869,863	1,068,558	810,460	258,098
EAST ST. LOUIS & SUBURBAN COMPANY, EAST ST. LOUIS, ILL.					
1 m., Mar., '18	\$328,221	*\$250,282	\$77,939	\$67,281	\$10,658
1 m., Mar., '17	287,052	*183,819	103,233	64,662	38,571
12 m., Mar., '18	3,783,627	*2,668,891	1,114,736	792,345	322,391
12 m., Mar., '17	3,197,789	*1,955,131	1,231,658	760,429	471,229

LEWISTON, AUGUSTA & WATERVILLE STREET RAILWAY, LEWISTON, ME.					
Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net. Income
1 m., Mar., '18	\$64,766	*\$61,072	\$3,694	\$19,126	†\$15,432
1 m., Mar., '17	67,227	*53,586	13,641	15,679	†2,038
12 m., Mar., '18	868,790	*721,720	147,070	191,057	†43,987
12 m., Mar., '17	828,722	*587,706	241,016	186,001	55,015
REPUBLIC RAILWAY & LIGHT COMPANY, YOUNGSTOWN, OHIO					
1 m., Mar., '18	\$481,786	*\$347,598	\$134,188	\$98,128	†\$46,699
1 m., Mar., '17	376,822	*245,765	131,057	78,347	†53,842
12 m., Mar., '18	5,207,284	*3,617,494	1,584,790	1,055,564	†623,535
12 m., Mar., '17	4,143,045	*2,514,630	1,628,415	868,735	†778,566
NORTHERN OHIO TRACTION & LIGHT COMPANY, AKRON, OHIO					
12 m., Mar., '18	\$6,559,130	\$4,191,939	\$2,367,191	\$1,013,507	\$1,353,684
12 m., Mar., '17	5,543,778	3,043,414	2,500,364	914,551	1,585,813

\* Includes taxes. † Deficit. ‡ Includes non-operating income.

†† On May 1, 1917, the Atlantic Shore Railway was divided East and West of York Beach, Me., the Western end passing to the operating control of the Portsmouth, Dover & York Street Railway. Figures for the first four months of 1917 are for the entire system. Beginning with May 1 figures for the Atlantic Shore Railway as at present constituted are given.



# Traffic and Transportation

## Fares Up from Six to Seven Cents

Hartford & Springfield Street Railway Advances Zone Fares Another Cent, with Fifteen Rides for \$1

The Hartford & Springfield Street Railway, Warehouse Point, Conn., announced an increase in fare from 6 cents to 7 cents in the zones operated by the company in Connecticut, effective on May 20.

At a public meeting in Thompsonville on May 13, George S. West, treasurer of the road, discussed the necessity for the increase. He stated that the company was not earning its interest charges at present and that no dividends had been paid on the common stock since the first year of operation. Unless net earnings could be materially increased a receivership was likely, with the probability of the road being sold for junk at a price which it is estimated will return 50 or 60 per cent of the investment to the owners. From 1901 to 1908 only about 6 per cent was paid on the preferred stock; from 1908 to 1912 less than 3 per cent, and since 1912 nothing has been paid.

The company operates about 48 miles of track. In 1917 an inventory by Sloan, Huddle, Feustel & Freeman, Boston, showed a total value of \$1,290,125, based on the prices of normal times. The road is bonded for only \$20,000 per mile, and its capitalization includes \$285,000 of preferred stock and \$500,000 of common. Mr. West said that the cost of material had increased 140 per cent within a comparatively short period; that wages were lower than on most other roads, and that these will probably be increased after June 1, when the existing agreement with the men expires. A high tribute was paid by the speaker to the loyalty of the employees, who have faithfully remained at their posts in the face of the rising cost of living and of superior opportunities elsewhere. The total cost of fuel for the year ended April 30, 1918, was \$43,702, compared with \$24,423 the previous year. Operating results for the 1917-1918 fiscal year were: Gross earnings, \$240,608; operating expenses and taxes, \$210,912; net earnings, \$29,696; interest, \$45,950. The total deficit was \$26,085.

The company has arranged to sell books of tickets at the rate of fifteen rides for \$1.

## "Key System News" Popular

The San Francisco-Oakland Terminal Railways, Oakland, Cal., at present is distributing approximately 80,000 of each issue of *Key System News*. Of this number more than 35,000 are dis-

tributed through the mails to a list compiled from the telephone book, lists of club members, both gentlemen's and ladies' clubs, city directories, fraternal organizations, etc., and by personal canvass of the homes of working people whose names do not appear in the telephone directory. The paper is mailed direct to residences and not to offices.

In addition to those sent by mail, the company also carries supplies of copies in two tin boxes, one at each end of the cars. In that manner it disposes of about 40,000 copies. *Key System News* is regarded as having been of great help in educating the people of the communities that are served by the railway to a better idea of the business of the company and to the problems of increasing costs for labor and material.

## London Fare Increase Refused

The request of the London (Ont.) Street Railway for a fare increase has been rejected by the City Council by the adoption of the recommendation of the finance committee and board of control "that no action be taken on the request . . . at present."

Meanwhile the employees have refused anything less than the 30 per cent wage increase which they demanded. As a result the question has gone to a board of conciliation, appointed under the industrial disputes act.

The company put forward a proposal that the city should have a measure of control and also jurisdiction over the expenditure of all earnings in excess of 6 per cent on its stock issue. Figures were presented showing that there was an actual deficit last year of \$24,827, with capital obligations fully met. The company's franchise expires in 1925. The dividend on stock actually was paid in the first half of the year, but was passed in the second half.

Mayor Somerville suggested that the company arrange to discontinue temporarily its annual redemption of \$35,000 of bonds, paying interest meanwhile on a sort of patched up moratorium.

Last year 7,976,239 people were carried on seven-for-25-cent tickets, 1,553,099 on limited nine-for-25-cent tickets, 268,574 on two-for-5-cent child's tickets and 1,091,836 on 5-cent cash fares. The average fare per passenger was 3.63 cents.

The company has not yet availed itself of its right of appeal to the Ontario Railway & Municipal Board. It is practically certain that the question will be reopened later in the year, when the new wages are in operation.

The company carried on a vigorous advertising campaign, and it is believed that an effective groundwork has been laid for future action.

## Trenton Fare and Service Cases

Former Will Be Begun on June 3 Following Conclusion of Inquiry Into Service and Equipment

The Board of Public Utility Commissioners of New Jersey decided on May 14 to start the hearing on June 3 on the application of the Trenton & Mercer County Traction Corporation for 6-cent fares.

At present hearings are being held before the commission on complaint of the City Commission, in which poor service is alleged. After the cross-examination in the pending service improvement is completed the hearing will be resumed on May 28, and this will allow the Utility Commission time to prepare for the rate hearing.

H. C. Eddy, senior inspector of traffic for the Utility Commission, testified that he did not think one-man cars would be advisable for Trenton. He produced cards taken from three-day readings during the rush hours showing that not enough cars were in service to handle the crowds. He thought that the riding habit in Trenton was not as strong as in other cities. Mr. Eddy said the company needed a dispatching system to improve its service.

Many recommendations for improvement to its lines were made at the hearing of the Trenton & Mercer County Traction Corporation before the commissioners on May 15. F. J. Daly, an inspector for the board, who made a complete survey of Trenton, was assisted by five trained traffic observers. Mr. Daly said the company did not provide ample service during the rush hours, especially to the men and women employed in the factories. He said that two of the faults were the failure to maintain schedules and the operation of single-truck cars.

That the carhouses of the corporation should be removed from their present location to some site more central in order to be more accessible for the cars and get them promptly in service was one of the recommendations of Chief Inspector Eddy of the commission. Mr. Eddy presented a detailed statement of defects in cars and tracks on the Trenton road. He said the fire protection at the carhouses is not adequate and he recommended an automatic sprinkling system over all the structures. He also suggested a reorganization as far as the corporate existence and the operating department were concerned. He thought that all the single-truck cars should be replaced with double-truck cars.

The hearing was before Commissioners Donges and March. George L. Record, special counsel, and Charles E. Bird, city counsel, represented Trenton. Former Prosecutor Martin P. Devlin appeared for the labor interests, and Frank S. Katzenbach, Jr., and Joseph E. Hunt, together with Rankin Johnson, president of the traction company, were present on behalf of the company.



## Pittsburgh to Zone

### Receivers Realize Inadequacy of Recently Increased Flat Fare to Meet the Present Conditions

The receivers of the Pittsburgh (Pa.) Railways after an examination of the revenues, expenditures and financial needs of the company, have come to the conclusion that it is absolutely imperative that the revenues be increased in order that proper service may be maintained and that adequate provision be made for the immediate future.

A statement by the receivers says: "Our examination indicates that a fare of from 7 to 8 cents will be necessary to take care of the things that must be done to render the service that should be rendered, but we hope that we will be able to find a way to establish an area in the downtown section where a lower rate than this will be sufficient. As soon as we arrive at a definite conclusion with regard to the actual necessities and to our plans to overcome those difficulties we will make public the details."

In discussing the announcement, Attorney Charles A. Fagan, one of the receivers, said he did not believe there would be any widespread opposition to the proposed plan once it was fully understood and the equitable treatment it would afford the people was appreciated. He is quoted as follows:

"I do not think the proposed plan will be considered unjust or burdensome when all the points are announced and its workings are understood. That announcement, I may say, will come very soon; the matter is virtually decided upon now.

"The zone plan, or the paying by the passenger for the ride according to the distance traveled, is the only logical method. There is no reason why one person should pay as much for riding a short distance as another does for riding several miles. There will be a lowering of the present rate of fares in many instances. Some of those who travel will go back to the old 5-cent fare. I think the public will come to see that the plan is the right one and should have been effective long ago."

### Fare Increase for Atlantic City Road

The State Board of Public Utility Commissioners of New Jersey has allowed an increase in fares for the Atlantic City & Shore Railroad. Two cents has been added to the rate between Atlantic City and Pleasantville. Other zones in which the company operates are affected at the rate of 1 cent for each fare collected. The company will continue to sell strip tickets at six for 60 cents. This the board says will result in a 5-cent fare for patrons. It is further stated by the board that the increase appears to be a reasonable means of securing added revenue for the company, and that it is estimated the raise in fares, will result in an increase of \$20,058 for the company.

A hearing on the application for the

increase was held on May 13. No opposition was registered. The board was of the opinion that if the operation of the road was to be continued, additional revenue must be afforded and that it did not seem to be unreasonable to expect that the division could yield such revenue. The increase is to take effect at once.

### I. T. S. Increases Allowed

In an order effective from May 1, the Public Service Commission of Illinois has granted almost in its entirety the petition of the Illinois Traction System, Peoria, for emergency relief for electric light and gas plants in fourteen Illinois cities where it operates.

The commission also allows 6-cent fares in Cairo and Jacksonville and the elimination of tickets and straight 5-cent fares in Bloomington, Decatur, Danville, Champaign, Urbana, Galesburg and Quincy. Increases in rates for gas ranging from 10 to 25 cents a thousand are allowed in Decatur, Danville, Champaign, Urbana, Galesburg and Jacksonville. Electric rate increases of approximately 1 cent a kilowatt-hour are allowed in Bloomington, Galesburg, Normal, Decatur, Danville and Jacksonville, while smaller increases are allowed in Cairo and cities in which the Madison County Light & Power Company operates.

The order in brief says that this is an emergency case and that it is the duty of the commission in each instance to determine what may be reasonable rates for the public and the utility alike.

The new rates are not to remain in effect beyond six months after the termination of the war and may be rescinded before that time. If the commission decrees, the old rates automatically become effective. The companies are to file reports of earnings and expenses every six months.

### Boston Will Eliminate 1152 Stops

The Boston (Mass.) Elevated Railway is planning to eliminate 1152 stopping places on its surface lines for the purpose of saving coal as recently recommended by James J. Storrow, New England Fuel Administrator. There are 2881 stopping places on the surface lines less than 500 ft. apart, and 1200 of these are less than 400 ft. apart. Forty per cent of these, or 1152, can be withdrawn and it is estimated that this will save 27,000 tons of coal in one year, or about enough fuel to operate the road for twenty-seven days in the winter. Bulletins emphasizing the above facts have been posted in the various subway stations, car-houses, etc., on the system. They are signed by Edward Dana, transportation manager. These bulletins also urge the co-operation of the public as follows:

"Twenty-seven thousand tons of coal saved during the coming year will operate the road for approximately twenty-seven days next winter, when it may be impossible to get coal.

"As a war obligation the co-operation of patrons is solicited."

## Rigid Parking Rules

### At Some Corners in Washington Autos Not Permitted to Cross Tracks Except at Night

The district commissioners of the District of Columbia, supplemented by the police department, have just announced a series of new traffic rules which will go into effect on June 1. Their purpose is still further to help car movement which has already been assisted by the skip-stop, staggered-hour program, introduced in Washington by the commission. The section bounded by I Street, Pennsylvania Avenue, Seventh Street and Seventeenth Street is defined as the congested section, and most of the new regulations apply to it.

#### NO LEFT-HAND TURNS

The two most radical changes forbid left-hand turns at Fifteenth Street, New York and Pennsylvania Avenues and Fourteenth Street and New York Avenue and establish a number of one-way streets. At Fifteenth Street and New York Avenue vehicles are forbidden to cross the car tracks at all. Where there is a street loading platform or safety zone, no vehicle may stand between the platform or zone at the curb except long enough to take on or let off passengers. On several streets no parking of automobiles or other vehicles is permitted; on other streets parking is allowed for a limited time only.

### Reduction in Fare Refused

The State Board of Public Utilities Commissioners of New Jersey has dismissed the petition of the city of Hoboken, filed on March 26, 1913, asking that the fare of the Public Service Railway there be reduced from 5 cents to 3 cents. The original petition applied to the Washington Street and the Willow Street lines, but on Oct. 1, 1915, an amended petition was filed making the petition applicable also to other lines in the city.

The petition alleged that the 5-cent rate of fare was unjust and unreasonable and that a 3-cent rate would be just and reasonable. After declaring that the city of Hoboken failed to sustain its allegations, the report of the Board of Public Utility Commissioners says:

"A satisfactory conclusion, even after a complete analysis of the testimony is impossible because of the confused state in which it was presented. Much of the testimony offered by various witnesses was subsequently withdrawn because of inaccuracy. Many of the elements necessary to a proper appraisal were disregarded and it would seem that no genuine attempt had been made by any of the witnesses to ascertain any proper allocation of the passengers, revenue therefrom, or operating expenses to the city of Hoboken which would justify the board in making any determination as to the merits of the application."



## Charlottesville's Fare Increase Carried Unanimously

### The Value of Good Public Relations in a Pinch Is Demonstrated Again in Virginia's University City

In securing the right to charge a straight 5-cent fare and a straight 3-cent children's fare in place of the six-for-a-quarter and two-for-five tickets, noted briefly in the *ELECTRIC RAILWAY JOURNAL* for April 27, page 831, the Charlottesville & Albemarle Railway, Charlottesville, Va., did not have to depart from its unique position as "an electric railway without an attorney." The local franchise did not embody any restrictions on rates of fare other than that the maximum within the city limits must not exceed 5 cents and without the city limits, 10 cents. The grant did require, however, that if any change was desired formal advertisement must be carried four times and that application for a hearing must be made before the State Corporation Commission with submission of valuation figures and other evidence of conditions.

#### FORMAL AND INFORMAL NOTICES

In compliance with the law, the railway, which was described in this paper for Sept. 22, 1917, inserted the usual formal notice on April 1, 4, 8 and 11.

#### Please Note

On account of the great increase in the cost of labor, rails, copper wire, in fact everything used in the operation of a street railway, we shall be compelled to discontinue on March 1st, 1918, the sale of six tickets for a quarter, having a straight five-cent fare; while for children between five and thirteen years of age tickets will be sold at the different stores, and at the Company's Office, at three cents each.

We regret very much the necessity for this action, but it is in order to maintain the service and help pay expenses. Tickets will be on sale until March 1st.

C. & A. RY. CO.

#### NOTICE OF INCREASE

The informal notice, however, appeared during the last few days of February both as a newspaper advertisement and a car poster. This notice, reproduced herewith, begins with a "Please Note," and the general tone is one of regret that an increase is necessary to maintain the quality of the service. To give the public a breathing spell, the company announced that tickets could still be bought at the old rates up to March 1. This brought a veritable avalanche of ticket sales, fully \$2,000 of tickets being sold within ten days on a property whose total railway income during the entire year 1917 was only \$42,605.

In the meantime, formal hearing before the State Corporation Commission had to be delayed until April 15. Pending this hearing, the company stopped selling tickets on the cars after March 1. Of course, it was still possible for a person to buy tickets at the

old price by going to the office of the company, but very few took advantage of this opportunity.

At the hearing before the commission, the company was represented only by John L. Livers, its vice-president and general manager. The application was granted without any opposition, either from the Charlottesville Council or the Chamber of Commerce. Everybody felt the company was entitled to any increase that it needed to maintain its high standard of service.

Perhaps this quotation from an editorial entitled "A Fair Rate," in the Charlottesville *Daily Progress* is as good a picture as any of the public frame of mind:

"Charlottesville can boast the best street railway service of any city of equal size in this country. It has attracted favorable comment from many strangers who are surprised to find such a modern and splendidly equipped street railway in a city no larger than Charlottesville. To continue to maintain this up-to-date system, the company finds it imperative to discontinue the sale of six tickets for 25 cents."

The editorial then listed a large number of places that had gone to 6 and 7-cent fares whereas Charlottesville was simply going to the 5-cent fare.

Mr. Livers figures that the 5-cent full fare and 3-cent half-fare will add about \$3,550 to the annual revenue, assuming that the travel for 1918 equals that of 1917 when the receipts were \$42,605. It will not be easy to keep this volume of traffic because the war has cut down the attendance at the University of Virginia from 1200 to 600 students. At the same time, the company is certain that not a fare will be lost because of the increase. The discontinuance of tickets will also save several hundred dollars in printing and accounting charges, besides simplifying the work and eliminating temptation for the car operators.

#### Municipal Railway Feels the Pinch

The proposed amendment to the charter of the city of Edmonton, Alta., authorizing it to collect fares on the Edmonton Municipal Street Railway on the straight zone principle, was not authorized by the Alberta Legislature, but the following section was adopted:

"Notwithstanding anything to the contrary whatsoever, the city is hereby declared to have and it shall have the power and authority to charge such tolls and fares on its tramway lines as shall from time to time be fixed by its Council, provided that such fares are uniform throughout the city."

Acting on the new powers, the city's street railway committee made the following recommendations:

"Transfers to be issued only between 6 and 9 a. m. and 5 and 8 p. m. A 10-

cent fare between 11.15 p.m. and the time when cars cease running at night. Six tickets for 25 cents, good between 5 and 8 a.m. School children, ten tickets for 25 cents. Street railway to be supplied with electric energy at cost. Otherwise the 5-cent fare to remain in force as before."

An alternative proposal was submitted by Alderman Martin. He suggested the following:

Children 2½ cents, but such tickets not to be used between 9.30 and 11.15 a.m., and after 5 p.m. Labor tickets 4 1/6 cents, or six for 25 cents. Ordinary tickets, 6¼ cents—that is, four for 25 cents, or cash fares 7 cents. Ten-cent fares after 11.15 p.m.

Further discussion of the matter was adjourned until the new legislation becomes operative.

#### Report on Transportation in Washington

The report of the Public Utilities Commission of the District of Columbia to the Senate on March 9 relative to transportation conditions in Washington has just been published as document 197 of the Sixty-fifth Congress, Second Session, Senate. It contains sections 1 to 5 of the report made by John A. Beeler, the commission's expert, on congestion in the throat of the Capital Traction System, stopping places, entrance to Washington, of the W., B. & A. interurban cars, staggered hours of business and congestion on the downtown business district lines of the Washington Railway & Electric Company. The commission says in its report that it is still studying the question of rerouting and believes that it has full power, under the public utilities act, to take all necessary steps to carry out such improvements.

#### Salt Lake Fare Decision Upheld

By a decision of the Supreme Court of Utah Salt Lake City loses its fight for the 4-cent fare on the lines of the Utah Light & Traction Company.

The Public Utilities Commission ruled some time ago that the company's application for the elimination of the commutation books, giving fifty fares for \$2, be granted. As a result the selling of the tickets at the 4-cent rate was discontinued on Dec. 31 last, and the company declined to accept any of the tickets after Feb. 1. Appeal from the commission's decision was taken by Salt Lake City.

The decision of the Supreme Court says that the order of the commission increasing the fares, presented three questions:

1. Did the passing of the franchise ordinances fixing the fares and their acceptance by the defendant constitute a contract between Salt Lake City and the defendant and between Murray City and the defendant?

2. If the franchise ordinance constituted contracts, was it within the power of the Legislature to authorize the commission to change the fares?



3. Does the constitutional provision by which the city authorities are given the exclusive right to permit or to refuse permission to electric railway companies to construct and operate within the cities of the State, prevent the State through its Legislature, from exercising its sovereign prerogative to regulate and change the fares fixed in the franchise ordinances?

The first and second questions are answered in the affirmative by the Supreme Court. The third is answered in the negative. The court holds that so far as the question of the powers of the Utilities Commission are judicial, the utilities act has conferred power upon the Supreme Court; but in so far as the acts of the commission are properly administrative, or in their nature legislative, the power has been "wisely and properly" withheld from the court.

The decision of the Public Utilities Commission in this case was reviewed in the *ELECTRIC RAILWAY JOURNAL* for Feb. 16, page 34.

### Cleveland Body Will Investigate

The public utilities committee of the Chamber of Commerce of Cleveland, Ohio, is preparing to investigate the electric railway situation in order to ascertain whether the 6 per cent dividends, pledged by the Tayler grant to the Cleveland Railway, can be maintained and at the same time adequate service be furnished. This was decided at a meeting held on May 13. The work will be commenced just as soon as the personnel of a committee can be decided. Mayor Harry L. Davis, Street Railway Commissioner Sanders and members of the Council committee on street railways will be invited to participate.

Attorney H. J. Crawford, representing the company, said that Council must either allow the maximum fare provided by the franchise to be exceeded, or the service will have to be reduced. A clause in the grant provides for a reduction of service, if at any time the income is insufficient to pay the expenses of operation and, also, yield a return of 6 per cent on the investment, as represented by the outstanding stock.

Mr. Crawford said that the safeguards about owners of the stock are so strong that whenever the dividend rate is impaired the city will lose control of the operation of the road and the authority of the Street Railway Commissioner will be nullified temporarily. However, before the city would lose this control, arbitrators would have to ascertain that the service demands were too great to enable the company to meet its requirements at the maximum rate of fare and fix the method in which the company was to recoup its losses.

J. J. Stanley, president of the Cleveland Railway, expressed the hope that it would not be necessary to reduce the service. It is barely sufficient now to take care of the transportation needs of the city.

Within the past year the rate of fare has been increased four times.

## Philadelphia Rapid Transit Wants Six-Cent Fare

### Additional Revenue Imperative in Philadelphia if Ability to Serve Public Is to Continue Unimpaired

Mayor Smith of Philadelphia, Pa. on May 16 submitted to Councils a communication from the Philadelphia Rapid Transit Company, asking for an increase in fares from 5 cents to 6 cents.

The bill has in turn been referred to Councils' committee on finance and to the street railway committee. The measure provides that in case the transit lease now before the Public Service Commission is approved, the base fare shall be 6 cents, and the fare thereafter shall be subject to adjustment according to the terms of the lease. If the lease is not approved, the measure provides, the 6-cent fare shall be subject to revision and adjustment at the expiration of one year after the close of the war.

Thomas E. Mitten, president of the Philadelphia Rapid Transit Company, in a letter to Mayor Smith and Councils, said in part:

#### INCREASE A WAR MEASURE

"Apart from all other considerations, and purely as a war measure, the company, therefore, at the instance of its men and in order to be in a position to render more efficient service, asks you to assent under the 1907 contract to an increase in the base fare from 5 cents to 6 cents. It is estimated that this increase, after allowing for a slight falling off in riding, will add \$3,500,000 to \$4,000,000 to the revenues of the coming year, all of which will be expended in the payment of the increased wages and in the purchase of new cars, and other facilities and the improvement of service to the public. The company will immediately, upon assent being granted, place orders for 100 additional cars, and believes that it can get the necessary priority orders to have them delivered within a period of six months, so that if ordered promptly they will be available for the next winter.

"The company pledges that no part of the increased revenue derived from the increase of fare asked for shall be used to pay dividends to the stockholders of the company beyond the 5 per cent now established.

"The financial results for the year ended June 30, 1918 (two months estimated), will be as follows:

Gross earnings .....	\$30,343,000
Operation and taxes .....	18,337,000
Fixed charges and dividends...	11,253,000
Surplus .....	753,000

"An estimate of the results for the year beginning July 1, 1918, assuming a 4 per cent increase in gross earnings, an added payroll charge of \$1,750,000 on account of a 5 per cent increase in wage and with allowance for increase in the cost of materials and other expenses, follows:

Gross earnings .....	\$31,560,000
Operation and taxes .....	21,761,000
Fixed charges and dividends...	11,350,000
Deficit .....	1,551,000

"Applying this estimate of earnings for the fiscal year beginning July 1,

1918, to the estimated working cash balance on hand June 30, 1918, and having regard to the fact that all capital expenditures, including refunding, must be met out of current cash, as it is impossible to issue any new securities during the war period, the financial condition of the company as at June 30, 1919, would be as follows, no allowance being made for increase in fare:

Estimated cash working balance	
June 30, 1918.....	\$1,900,000
Year to June 30, 1919, deficit	
from operations .....	1,551,000
	\$3,490,000
Capital requirements .....	1,800,000
Estimated cash deficit June 30,	
1919 .....	\$1,451,000

"If the fare increase asked for should become effective, say, July 1, the estimated increase in gross revenues for the coming year would be \$3,500,000, from which should be deducted the above estimated cash deficit of \$1,451,000, leaving \$2,049,000 cash available for the purchase of 100 new cars and the improved service facilities promised. If the result of the fare increase should be more favorable than the estimates, the additional revenues would also be applied to the extension and betterment of the service."

### Dallas Jitneys Lose

Jitney drivers of Dallas, Tex., lost again in the recent city election in which they sought by initiative to validate the initiated ordinance adopted by the voters at a general election more than one year ago and later held invalid by the courts. The jitney drivers by an initiative petition at the recent city election sought to make certain changes in this measure which would have removed the objections raised to it and would have made the measure conform to the court's interpretation of the constitutional limitations on these points. The initiated measure was overwhelmingly defeated.

With the results of the recent election announced, A. S. Hardwicke, city attorney, has issued a statement outlining in full the city's attitude toward the jitneys in Dallas. Mr. Hardwicke reviewed the fight between the city and the jitney drivers from the beginning, showing how the city first enacted a simple regulatory ordinance, the provisions of which were not onerous, but that the jitney drivers objected to any form of regulation and went to the courts and secured an injunction nullifying the action of the city. This case has been appealed by the city and is now before the State Supreme Court.

With the situation thus disposed of for the time being, at least, city authorities have issued instructions to the police department to enforce the jitney regulations to the letter. This enforcement has practically put the jitneys out of business in Dallas.



## Transportation News Notes

**Metal Tokens for St. Louis.**—Metal tickets will be used by the United Railways, St. Louis, Mo., when the new 6-cent rate is applied on June 1.

**Six-Cent Fare in Chester.**—Notice was given on May 15 by the Southern Pennsylvania Traction Company, Chester, Pa., that a new tariff for fares would go into effect on June 14. The increase is from 5 cents to 6 cents.

**Increase for West Virginia Line.**—The Newell Bridge & Railway Company, Newell, W. Va., has been authorized to increase its fare on the Newell-East Liverpool line from 5 cents to 10 cents, effective at once.

**Skip Stop Suggested for Twin Cities.**—The skip-stop plan of operation for the Twin City Rapid Transit Company has been suggested to the Councils of Minneapolis and St. Paul, Minn., and will receive attention at once, it is expected.

**Maine Road Files Increase.**—The Calais (Me.) Street Railway on May 18 filed a new schedule of fares with the Public Utilities Commission of Maine proposing an increase in fares from 5 cents to 6 cents, effective on June 10.

**Commission Refuses Fare Increase to Interurban.**—The Public Utilities Commission of Colorado has refused the application of the Denver & Interurban Railroad for permission to increase the fare between Denver and Boulder from 75 cents to 90 cents for the 28½-mile trip.

**Springfield Wants Six-Cent Fare.**—The Springfield (Ill.) Consolidated Railway has filed a petition with the State Public Utilities Commission asking for authority to increase its rates from 5 cents to 6 cents, and to discontinue selling tickets for reduced prices, as at present.

**Omaha Would Charge Six Cents.**—The Omaha & Council Bluffs Street Railway has filed a petition with the State Railway Commission of Nebraska for permission to increase its fares in Omaha from 5 cents to 6 cents. The purpose of the company to do this was noted briefly in the ELECTRIC RAILWAY JOURNAL of May 18.

**Will Go to Seven Cents.**—It is reported that the Mahoning & Shenango Railway & Light Company, Youngstown, Ohio, will file with the Public Service Commission of Pennsylvania a new tariff increasing car fares to 7 cents or six tickets for 40 cents in the Sharon-Farrell district, which includes Wheatland, Farrell, Sharon and Sharpsville.

**Cincinnati Must Be Shown.**—W. C. Culkins, street railroad director of Cin-

cinnati, Ohio, is quoted as saying that an increase in the rate of fare will be considered only after all other remedies for improving the financial situation of the Cincinnati Traction Company have been exhausted. He considers that the burden of proof rests with the company.

**Elevated Skip Stops.**—Patrons of the Ravenswood branch of the Northwestern Elevated Railroad, Chicago, Ill., were recently notified that to shorten the running time between their stations and the downtown loop, commencing May 13 and until further notice a skip-stop train schedule would be put into operation on the Ravenswood branch during the morning rush hours.

**Would Compel Company to Pave.**—Judge King Dykeman, in the King County Superior Court, Seattle, Wash., recently signed the order for peremptory writ compelling the Puget Sound Traction, Light & Power Company to proceed with the paving in the Queen Anne District, as obligated in its franchise. It is understood the company will file a supersedeas bond pending appeal.

**Twin City to Ask Six-Cent Fare.**—Horace Lowry, president of the Twin City Rapid Transit Company, Minneapolis, Minn., speaking on May 17 before the St. Anthony Commercial Club, said the company is preparing a request to the City Council for permission to put in a 6-cent fare. According to Mr. Lowry the company is facing higher fare, curtailment of service or bankruptcy. The proposed move is a war measure.

**Final Schedule Order Issued.**—The Public Service Commission for the First District of New York has adopted a final order directing the Brooklyn Heights Railroad and other companies of the Brooklyn Rapid Transit System operating surface car lines, to file operating schedules with the commission and to post in the cars placards giving the "headway" and service called for in the schedule. These schedules must show the route, the car run numbers, the terminals and car depots.

**P. A. Y. E. Extended in Spokane.**—On May 5 the Spokane (Wash.) Traction Company inaugurated the system of pay-as-you-enter on all of its cars. This plan of operation has been in use on the Washington Water Power Company cars for a couple of years. The Spokane Traction Company is planning to change its gates both of which are at the rear end of the car opening out on the right side and operated by the motorman. When the change is made it will be possible for the conductor to operate the gates.

**Blue Hill Street Railway Seeks Fare Increase.**—The Blue Hill Street Railway, one of the original Stone & Webster properties south of Boston, Mass., has filed a schedule of increased fares with the Public Service Commission of Massachusetts. The road at present is operated in three zones of 5-cent fares each and in one 6-cent zone. It is proposed to increase the fare to 6 cents in

each of the former 5-cent zones and to 7 cents in the former 6-cent zone. A public hearing will be assigned by the board at a later date.

**Seattle Suburban Line Feels Pinch.**—Thomas F. Murphine, city utilities commissioner of Seattle, Wash., has agreed to the request of a delegation from the Rainier Valley Business Men's Club to investigate the Seattle & Rainier Valley Railway. The club committee presented no definite plan or recommendation. It asked that the city extend some relief to the road. The elimination of transfers, the sale of block tickets and a 6-cent fare have all been advanced as relief measures, although the 6-cent fare seems hardly possible in view of the recent court ruling.

**Dayton Has a Traffic Problem.**—A. L. Drum, transportation engineer of the United States Shipping Board, addressed electric railway officials and members of the City Commission at Dayton, Ohio, on May 8 in an effort to offer suggestions that will aid in the solution of the transportation problem in that city. Mr. Drum suggested that factories stagger the hours for opening and closing and that cars be re-routed. The matter is now before the Commissioners and J. E. Barlow, city manager, and an effort will be made to work out a practical plan.

**Voters to Pass on Fare Increase.**—A resolution has been passed by the City Commission of Sioux Falls, S. D., to submit the question of a 6-cent fare for the Sioux Falls Traction System to the voters and a special election has been called for May 28. Several weeks ago a committee of members of the local commercial club and other citizens was appointed to investigate the affairs of the company. On May 11 that body filed a report in which it recommended a 6-cent fare. Among other things the committee learned that the railway has paid no dividend on its stock since 1907 and that for the last three years the expenditures of the company have exceeded the receipts.

**Increase for Trenton Suburban Line.**—An increase from 5 cents to 6 cents on each fare and the withdrawal of commutation tickets at twelve for \$1 was allowed on May 17 to the New Jersey & Pennsylvania Traction Company on its lines in four fare zones between Trenton and Princeton by the State Board of Public Utility Commissioners. The board says the increase is for the purpose of meeting a deficiency in operating revenue and to provide for the bond interest and not for the purpose of declaring dividends, and that the addition of 1 cent to each fare and the withdrawal of tickets will net the company 6 per cent on the physical value of the property.

**Charleston Refuses Fare Request.**—By a vote of nine to eight the City Council of Charleston, S. C., on May 14 rejected the petition of the Charleston Consolidated Railway & Lighting Company asking for an increase in fare from 5 cents to 6 cents. When the matter was officially reported to the Alder-



men, Chairman Lawrence M. Pinckney, of the joint committee on ways and means, streets and railroads, first read the majority report, which favored an increase, and then the minority report, signed by five members, which opposed the granting of the petition. Alderman Pinckney moved that the minority report be considered as a substitute for the majority report after Alderman Robertson had moved for adoption of the majority report.

**A Red Cross Car.**—W. W. Lowe, manager of the Manhattan & Queens Traction Corporation, New York, N. Y., is preparing a car for the Red Cross campaign. The exterior and interior will be entirely in white enamel, with large red crosses prominently displayed. In this case the motorman will wear the costume of a surgeon, while the conductress will represent a Red Cross nurse. Mr. Lowe is contemplating offering an annual pass over the railway to the passenger making the largest subscription. The car of this company which has been enlisted in the Thrift Stamp campaign was described and illustrated in the *ELECTRIC RAILWAY JOURNAL* of May 18, page 991.

**Wants Straight Five-Cent Fare.**—The Des Moines (Ia.) City Railway has started a newspaper advertising campaign as a forerunner of its plan to put fares in Des Moines on a straight 5-cent basis. Several times recently all the papers in the city have carried half page advertisements which give a very concise financial statement of the company's revenues and expenses during the first three months of 1918. Particular attention was called to the fact that the expenses during this period exceeded the income by more than \$4,000. There is likelihood now that the City Railway will ask the Council to suspend the six-for-a-quarter ticket clause of the franchise during the period of the war. Officials of the company are of the opinion that the city can take this action without a vote of the people which would be necessary if an unqualified 5-cent fare were sought.

**A Runaway.**—A curious runaway occurred recently on an electric railway in one of the Central States. The primary cause was that the trolley jumped off on a small pay-as-you-enter car which, at the time, was on the out trip near the edge of the city. The motorman-conductor got off to put the trolley back. When the trolley struck the wire, the car started down the track for the country. The motorman was too surprised to hang to the trolley rope. He had left his controller on the first contact. Since the car was on a 12-mile interurban track and would soon meet a big interurban car, the motorman hurried to the dispatch phone and explained the situation. Power was cut off at once. The motorman walked 4 miles to get his car and then a mile to a station phone to call for power again. His carelessness had tied up the interurban and freight service of a busy railroad line for two hours.

## Legal Notes

**ILLINOIS.**—*Interurban Motorman While on City Tracks Is Employee of Interurban Company Under Workman's Compensation Act.*

Under the workmen's compensation act, a motorman employed by an interurban railway company and wearing its uniform, who was paid by the hour and operated its cars to the city limits of Chicago and then operated them within the city limits under an agreement between the interurban company and a city railway company, whereby that company paid his wages while operating within the city, was the employee of the interurban company while operating cars within the city. (*Chicago & Interurban Traction Co. vs. Industrial Board of Illinois et al.*, 118 *Northeastern Rep.*, 464.)

**ILLINOIS.**—*Assessment of Railway Buildings for Municipal Benefits.*

Where the real estate on which an electric railway terminal is located is assessed for improvements and the use of such terminal for railway purposes is permanent, the property should not be assessed on the theory that the company might sell it for a manufacturing plant and move its terminal to some other place. (*City of Chicago vs. Chicago Railways*, 118 *Northeastern Rep.*, 728.)

**MASSACHUSETTS.**—*Release by Injured Passenger Does Not Affect Executor's Right of Action.*

Where an injured passenger gave a street railway a release from any and all claims, demands, actions and causes of action of every name and nature that she had or might have against the company as a result of her injuries, the release to be binding on her, her heirs, executors, administrators and assigns, such release did not bar recovery in the executor's action for wrongful death of the passenger caused by her injuries, since, in case of recovery for wrongful death, the executor or administrator receives the penalty for death in a different capacity from that in which he would receive damages for conscious suffering. (*Wall vs. Massachusetts Northeastern Railway*, 118 *Northeastern Rep.*, 864.)

**NEW JERSEY.**—*Person Crossing Track Must Exercise Continual Vigilance.*

The plaintiff before crossing the track of a street railway looked first to the south and then to the north, and continued looking to the north until a car coming from the south came into the range of observation, but he did not look again to the south before attempting to cross. He was struck and injured by the car which was moving

from 5 to 8 m.p.h. It was held to be a court question and not a jury question, that the plaintiff was guilty of contributory negligence and that it was error for the trial court not to have granted a motion to nonsuit the plaintiff or direct a verdict for the defendant. (*Hubbard vs. Atlantic Coast Electric Railway*, 102 *Atlantic Rep.*, 632.)

**NEW JERSEY.**—*Proper Service with Maintained Property More Important than Contracts with Municipalities.*

Where a street railway was being run at a loss, even without allowing for depreciation, the public utility commissioners should have granted a request to raise the fare from 5 to 6 cents, although there were local contracts with municipalities through which the road ran, such contracts being inferior to the duty of the street railway to keep and maintain its property and equipment and to furnish safe, adequate, and proper service as required by act April 21, 1911 (P. L. page 379) sec. 17 (b). (*Northampton, Easton & Washington Trac. Co. vs. Board of Public Utility Commissioners of New Jersey*, 102 *Atlantic Rep.* 930.)

**NEW YORK.**—*Apportionment by Commission of Cost of an Improvement Which Required Joint Action of More than One Utility.*

The public service commission law (Consol. Laws, chap. 48) sec. 50, provides that if the commission has determined to order improvements which require joint action by more than one railroad company, it shall notify them that it shall be made at their joint cost, and if, in thirty days, they shall fail to file an agreement for division or apportionment thereof, it shall have authority, on hearing, to fix the proportion of the cost or expense to be borne by each. Held, that the commission need not impose a part of the cost on each, but, if fairness requires it, may order all the cost to be paid by one. (*People ex rel. International Railway of City of Buffalo vs. Public Service Commission, Second District, (Erie Railroad et al., interveners)*, 168 *New York Sup.*, 322.)

**NEW YORK.**—*Person Waiting to Board Car Injured by Car Coming from Opposite Direction.*

Where a car on a single track approached plaintiff, standing under a bright light in the roadway in the usual place to board a car bound the other way, and, when the motorman saw plaintiff turn and diagonally approach the track, he sounded his gong, put on the air brake and reversed the current, but plaintiff's umbrella caught against the side of the car, turning her around and causing her to fall, the street railway was not liable, plaintiff having been to blame for letting her umbrella catch against the car by holding it low to cover her hat and having been preoccupied in looking the other way. (*Campbell vs. Richmond Light & Railroad*, 168 *New York Sup.*, 814.)



### TEXAS.—*Misconduct of Jury in Arriving at Verdict.*

In an action for personal injuries, it was flagrant misconduct for the jury in assessing damages to consider the fact that the plaintiff's attorneys would receive 50 per cent of the recovery, and to double their verdict on that account, and to consider items for hospital, medicine and physicians not submitted to it. (San Antonio Traction Co. vs. Mendez, 199 Southwestern Rep., 691.)

## New Publications

### Statistics of Railways for 1906-1916

Bureau of Railway Economics, Washington, D. C. Consecutive No. 120. Miscellaneous Series No. 30. Fifty-eight pages. Paper.

This annual bulletin brings together in convenient form the official statistics of railway operation, based upon official data of the Interstate Commerce Commission, from 1906 to 1916, the latest year for which such data are available. The statistics of net operating income have been compiled to correspond as nearly as possible with the definition of the "standard return" guaranteed by the federal government to the railroads under national control.

### Effect of Workmen's Compensation Laws Is Diminishing the Necessity of Industrial Employment of Women and Children

By Mary K. Conyngton. United States Department of Labor, Bureau of Labor Statistics. Bulletin No. 217. Workmen's Insurance and Compensation Series No. 11. Superintendent of Documents, Government Printing Office, Washington, D. C. Paper, 15 cents.

The investigations described in this book were undertaken to throw some light on the question of how workmen's compensation laws compare with employers' liability laws from the point of view of women and children in the families of injured employees. A study was made of the results under the elective compensation system of Connecticut, the compulsory insurance system of Ohio and the employers' liability law of Pennsylvania, which up to Jan. 1, 1916, had no compensation law.

In the author's opinion, the situation may be summed up by saying that in the compensation states the families of victims of industrial fatalities knew with reasonable certainty what they might expect, received it with reasonable promptness and found it, in general, sufficient to keep them from extreme hardship. In the liability state visited, however, the families of decedents were entirely uncertain as to what they would have or when they would get it, and a large proportion were quite certain that they would not receive anything. The author considers the former system preferable.

## Personal Mention

Percy Allen Rose has resigned as solicitor of the Johnstown (Pa.) Traction Company.

J. F. Canfield has been appointed auditor of the Ottumwa Railway & Light Company, Ottumwa, Iowa, succeeding C. Brazel.

J. O. Marcum, claim agent of the Ohio Valley Electric Railway, Huntington, W. Va., has been made superintendent of transportation of the company to succeed W. C. Baker.

John W. Williamson, general freight agent of the Ohio Valley Electric Railway, Huntington, W. Va., has been made assistant superintendent of transportation of the company.

W. R. Power has been made general manager of the Ohio Valley Electric Railway, Huntington, W. Va., to succeed H. S. Newton, now manager of railways of the Monongahela Valley Traction Company.

T. D. Rauch has been placed in charge of the new complaint department which has been instituted recently by the Little Rock Railway & Electric Company, Little Rock, Ark., for the purpose of centralizing the settling of complaints.

M. Miers has resigned as master mechanic for the Joplin & Pittsburg Railway at Pittsburg, Kan., and accepted a similar position with the Michigan United Railway at Kalamazoo, Mich. Mr. Miers was with the Michigan United Railway previous to his appointment at Pittsburg.

F. T. Morrissey has resigned as manager of the Eldorado Illinois group of properties of the Southern Illinois Utility Company to become electrical engineer for the Indiana Railways & Light Company, Kokomo, Ind., filling the place made vacant by the resignation of George H. Losey.

Fay Griffith, who has been superintendent of the lighting department of the Little Rock Railway & Electric Company, Little Rock, Ark., has been promoted to the position of superintendent of light and power and has taken over both the meter and line departments of the company.

Walter J. Cummings has been made chairman of the board of directors of the Chicago & West Towns Railway, Chicago, Ill., succeeding his brother, John J. Cummings, who died on May 4. Walter J. Cummings has been closely associated with this railway since its reorganization in 1913. He also has been connected in an official capacity with many other railway projects which he and his brother helped to finance and develop. All his active business life, both as a railway operator and a manufacturer of cars and car equipment, has been spent in studying the needs of the electric railway field.

Charles A. Coffin, chairman of the board of directors of the General Electric Company, has had the rank of Officer of the Legion of Honor conferred upon him by the French government. This was done through Justin Godart, formerly Assistant Secretary of War of France, who is in this country on a special mission. The honor given to Mr. Coffin is in recognition of his services as a member of the executive committee of the War Relief Clearing House for France and as a member of a committee of prominent Americans promoting the establishment of scholarships in French universities for American students after the war.

M. E. Graston, heretofore division passenger and freight agent of the Union Traction Company of Indiana at Indianapolis, has recently been appointed general agent at Indianapolis with authority in all departments at the Indianapolis terminal, subject, of course, to the general department heads. Mr. Graston commenced railroad work in 1890 as telegraph operator and agent at Letts Corner, for the Big Four Railroad. He continued in the service of that company until November, 1914, filling the position of agent at North Vernon, Rushville and Wabash, successively. In January, 1915, he entered the employ of the Union Traction Company in the traffic department, where he remained until June, 1910, when he left the company to become general manager of the electric railway between Indianapolis and New Castle, known as the "Honey Bee Line." This position he occupied until November, 1912, when the "Honey Bee" was taken over by Union Traction Company. Mr. Graston was then made division passenger and freight agent with headquarters at Indianapolis.

## Obituary

Edward T. Burrowes, the president of the Curtain Supply Company, Chicago, Ill., died very suddenly recently at his home in Portland, Me. Mr. Burrowes had been president of the company since its organization on May 19, 1899, at which time the E. T. Burrowes Company, the Adams & Westlake Company and Forsyth Brothers Company, sold out their curtain departments to the new concern which was called the Curtain Supply Company. Mr. Burrowes was therefore connected with the car curtain industry from its very beginning, being president of the first company that ever put on the market an automatic car window curtain. Mr. Burrowes leaves a widow and two children.



# Construction News

Construction News. Notes are classified under each heading alphabetically by States.

An asterisk (\*) indicates a project not previously reported.

## Franchises

**Portland, Me.**—The Portland Railroad, which is operated under lease by the Cumberland County Power & Light Company, has asked the Public Utilities Commission of Maine for its approval of the construction of certain branch-off tracks from its track on Sawyer Street, South Portland, to enable it to reach more easily the Portland ship-building plant and other industrial plants in that vicinity. The petition also contained requests for new track locations on Portland and Front Streets and on Sawyer and Front Streets.

**Wilmington, N. C.**—The Tidewater Power Company has asked the City Council for a franchise to construct an extension of its lines on South Front Street to the city limits and to build a connecting track on Third Street.

**East Cleveland, Ohio.**—A referendum election will be held in East Cleveland on June 18 on a new franchise ordinance for the Cleveland Railway recently enacted by the City Commissioners. The ordinance fixes the fare at 5 cents with a 1-cent charge for transfer. The franchise is to continue for twenty-five years, but six months before the expiration of each five-year period the question of changing the fare may be submitted to arbitration.

**Greensburg, Pa.**—The West Penn Railways has received a franchise from the Borough Council of Greensburg for the construction of a switch at Main and Otterman Streets, east, and the extension of its line from Potomac Street to the borough limits.

**Newport News, Va.**—Application has been made to the City Council by J. N. Shannahan, of the Newport News & Hampton Railway, Gas & Electric Company, representing the Emergency Fleet Corporation, for permission to construct a railway on Fiftieth and Fifty-ninth Streets and Virginia Avenue to transport workmen at the shipbuilding town now being established north of the city limits.

## Track and Roadway

\***Anniston, Ala.**—It is reported that business men of Anniston have appointed a committee composed of W. H. Weatherly, W. H. McKleroy, Joseph Saks, Ross Blackman and L. L. Crump to organize a company to build an electric or gas-electric railway from Anniston to Camp McClellan, a distance

of 6 miles. The company is in the market for relaying rails and also for second-hand or rebuilt cars if the line is to be electrified. Practically all of the fund of \$100,000 has been subscribed.

**Georgia Railway & Power Company, Atlanta, Ga.**—The last issue of *Here We Are*, the publication of the Georgia Railway & Power Company, states that the roadway department has a number of good-sized jobs on hand, despite the fact that but little new construction is being undertaken this year. Both tracks are being rebuilt on Edgewood Avenue from Piedmont Avenue to Bell Street and from Fort Street to near Jackson Street, new rails and paving being laid. The tracks are being relaid on Stewart Avenue to meet a change in grade. Part of the outbound Whitehall Street track is to be rebuilt. If the city decides to repave Peachtree from Five Points to Pine Street all that track must be rebuilt.

**Winnipeg (Man.) Electric Railway.**—Orders have been placed by the Winnipeg Electric Railway for a number of automatic electric track switching devices for installation at the most congested points on the company's line. If the devices prove satisfactory in operation, they will be adopted as a permanent improvement.

**Portsmouth, Dover & York Street Railway, Portsmouth, N. H.**—It is reported that the Portsmouth, Dover & York Street Railway will construct an extension from the junction of Dennett Street and Maplewood Avenue, through Cutt Street to Freeman's Point.

**Interborough Rapid Transit Company, New York, N. Y.**—The Public Service Commission for the First District of New York has announced that it has fixed June 15 as the date for the opening of the new Lexington and Seventh Avenue lines of the dual subway system. Work is being rushed with all possible speed on the two lines, and there is every indication that all will be ready on the date named except minor details to stations.

**Cincinnati (Ohio) Traction Company.**—Walter A. Draper, vice-president of the Cincinnati Traction Company, recently wrote a letter to Street Railroad Director W. C. Culkins, in which he objected to extending the East End line to Mount Washington and California, as provided for in a resolution adopted by the City Council, on the ground that the territory is sparsely settled and the line would lose money for the company. He also said that an extension there would depreciate the service some place else, because of the transfer of equipment.

**Ohio Electric Railway, Springfield, Ohio.**—About 300 ft. of the piling bridge of the Ohio Electric Railway near Ham-

ilton was washed away by high water in the Miami River on May 13. This may prove a serious inconvenience to transportation for some time.

**Seattle (Wash.) Municipal Street Railway.**—The Board of Public Works has awarded the contract for furnishing materials, labor, etc., for the construction of the elevated line of the Seattle Municipal Street Railway along East Marginal Way and West Spokane Street to C. Geske & Company, Seattle, for \$16,186. The contract for the trestle portion of the line, from First Avenue South and Washington Street to Railroad Avenue, south on Railroad Avenue South and Whatcom Avenue to Walker Street, 1½ miles, was let to D. W. Rutherford, Tacoma, for \$42,262. The contract for furnishing 800,000 ft. of lumber, consisting of ties, stringers and guard rails for the elevated railway was awarded to the Pacific Northwest Lumber Company at \$16,067.

## Shops and Buildings

**Bangor Railway & Electric Company, Bangor, Me.**—A freight house will be erected by the Bangor Railway & Electric Company in Old Town.

**Cleveland & Erie Railway, Girard, Pa.**—It is reported that the Cleveland & Erie Railway contemplates the construction of a large freight terminal in Conneaut.

## Power Houses and Substations

**Georgia Railway & Power Company, Atlanta, Ga.**—A new 66,000-volt substation has been completed at Calhoun by the Georgia Railway & Power Company. The company has also installed a 2000-kva. synchronous condenser at the Lindale substation.

**Interborough Rapid Transit Company, New York, N. Y.**—A new transformer station is being built by the Interborough Rapid Transit Company at 150 East Fifty-seventh Street, to cost about \$45,000.

**Bamberger Electric Railroad, Salt Lake City, Utah.**—A fire at the station of the Bamberger Electric Railroad at Thirty-first Street and Lincoln Avenue, Ogden, occurred on May 7 and completely destroyed the plant and equipment of the company, as well as the equipment of the Utah Power & Light Company, and the carhouse adjoining, containing twenty electric cars and several locomotives. The loss is estimated at about \$500,000. Plans are being made for the construction of a new fireproof carhouse either at Salt Lake City or Ogden. The reconstruction of the carhouse and sheds and the installation of the equipment for repairing, painting and general upkeep of the rolling stock of the company will cost approximately \$100,000.



# Manufactures and the Markets

DISCUSSIONS OF MARKET AND TRADE CONDITIONS

FOR THE MANUFACTURER, SALESMAN AND PURCHASING AGENT

ROLLING STOCK PURCHASES • MARKET QUOTATIONS • BUSINESS ANNOUNCEMENTS

## Westinghouse Electric Sales \$95,735,407

\$147,000,000 of Unfilled Orders on April 1, of Which \$110,100,000 Is For Regular Products

Evidence of the large demand upon electrical manufacturing companies is shown by the statement in the annual report of the Westinghouse Electric & Manufacturing Company that, as of April 1, 1918, the value of unfilled orders on hand was \$147,857,580. Of this amount \$110,185,007 was for regular products of the company. On March 31, 1917, the value of unfilled orders for regular products of the company was \$39,776,739. Sales billed in the fiscal year ended March 31, 1918, by the company and its proprietary companies, except the New England Westinghouse Company, aggregated \$95,735,407. This total compares with \$89,539,442 in the preceding fiscal year. The amount of sales billed, as stated for the year just ended, includes shipments since June 15, 1917, from the machine works (formerly Westinghouse Machine Company), also \$4,536,000 for munitions.

The volume of sales billed for the regular products of the company, it was stated, was greatly in excess of any previous year. Furthermore, the report said that no facilities heretofore employed on regular products are engaged on munition work.

The income account for the last year follows:

Gross earnings—Sales billed.....	\$95,735,407
Cost of sales—Factory cost, including all expenditures for patterns, dies, new small tools and other betterments and extensions; also depreciations of property and plant, inventory adjustments and all selling, administration, general and development expenses and all taxes.....	80,225,937
Net manufacturing profit.....	\$15,509,470
Other income—interest and discount.....	\$208,835
Dividends and interest on sundry stocks and bonds owned..	903,559
Miscellaneous—royalties, etc.....	112,869
	1,325,263
Gross income from all sources.....	\$16,834,733
Deduction from income—interest on bonds and debentures.....	\$303,917
Interest on notes payable.....	1,108,046
Miscellaneous interest.....	17,089
	1,429,052
Net income available for dividends and other purposes.....	\$15,405,681

The surplus as of March 31, 1917, \$18,105,298, was increased by the net income of \$15,405,681 for the year, making the gross surplus \$33,510,979.

In addition to the regular quarterly dividends at the rate of 7 per cent per annum on the preferred and common stocks, a special "Red Cross" dividend was paid, making a total of \$5,610,848 for all dividends paid during the year.

Special appropriations were made for the protection of inventory book values and to establish a research and development fund. After deducting these ap-

propriations and other miscellaneous adjustments the net surplus as of March 31, 1918, is \$26,404,694, an increase of \$8,299,396 over the net surplus as of March 31, 1917.

## Railway Lamp Stocks Growing Stronger

Manufacturers Advise Managers and Purchasing Agents to Place Orders—Shortage May Occur Again

Just how much the observance of the so-called daylight saving law is affecting the sale of incandescent lamps has not been determined. Experts are making estimates and, roughly speaking, it is believed that from 5,000,000 to 10,000,000 fewer lamps a year will be sold. With an annual production of about 210,000,000 lamps, these figures, in comparison, may not look formidable; but, nevertheless, they constitute quite an item. The demand for lamps has fallen off, as it always does, with the lengthening days and approach of summer. Manufacturers now say they are accumulating a good stock at all their plants in nearly every size and type of electric car lamps.

One of the largest manufacturers reports its stock in excellent condition for early shipments. Headlight and projecting lamps are also in a like favorable position. This is also true, possibly in slightly lessened measure, of other producers.

What the manufacturers, some of

## Car Curtain Supply Elects New Officers

To Move Into More Spacious Quarters  
Owing to Rapid Growth  
in Business

At a meeting of the directors of the Curtain Supply Company, held on April 30 last, Holmes Forsyth, formerly second vice-president and secretary, was elected president, succeeding the late Edward T. Burrows. Mr. Forsyth has been in active charge of the company since its organization in 1899, having at that time been elected secretary and general manager, which office he has held until his recent election as president.

Ward W. Willets, vice-president and treasurer and one of the organizers of the Curtain Supply Company, was re-elected.

Randolph S. Reynolds was elected secretary. He has been with the company since 1912. Prior to that time he was with the Western Steel Car & Foundry Company at Anniston, Ala., and the Pressed Steel Car Company at Pittsburgh, Pa., having been connected with the purchasing departments of these companies from 1905 to 1912. He left the latter in 1912 to accept a position with the Curtain Supply Company and later was made assistant to the general manager.

The Curtain Supply Company, owing to the necessity of having more space due to the growth of its business, has leased almost the entire building at 350-356 West Ontario Street, Chicago, and will be located there after the first of June. The new quarters will be about 50 per cent larger than the old, and in addition to having the advantage of greater and more efficient manufacturing facilities, the company will have its own switch track for shipping and receiving. The company has been at the old location at 320 West Ohio Street, Chicago, for about nineteen years, during which time not only has the business in its regular line of car curtains and fixtures grown in volume but also it has added other departments to handle new articles which it has developed and is manufacturing.

## Government Prices of Coal

The United States Fuel Administration has just issued an official list of prices for coal in effect on April 22, 1918. The quotations are for coal f.o.b. at the mines, by districts and for different sizes, with the monthly summer reduction, allowance for rescreening, etc. The circular is known as publication No. 4D, 1918.

whom are launching an educational campaign on the subject, desire railway managers and purchasing agents to understand is that within the next few weeks—no later than June, they say—buyers should give serious attention to placing orders for their fall and winter requirements. This is because war conditions are radically different in every aspect from normal times. The transportation situation will be more congested, and another shortage similar to that of last fall may occur. Productive capacity has not been curtailed.



## Large Order for Checking Device

Bay State Street Railway Buys Fifteen Hundred Economy Meters for Car Service

Following an extended investigation, the Bay State Street Railway, Boston, Mass., has purchased about 1500 Sango Economy watt-hour meters for use in its entire active passenger equipment. The order represents an expenditure of about \$75,000. It is understood to be for the largest number of checking devices ever ordered by an electric railway outside New York City. It is being filled by the Economy Electric Devices Company, Chicago, exclusive sales agent of these meters, the contract calling for the delivery of about 500 meters per month.

It is planned first to install the meters on rolling stock operating on the Gloucester division, then to extend their application to all the lines of the company north of Boston; and finally, to provide meters for all passenger cars south of Boston. More than 900 miles of line will ultimately be served in this way, and in due course it is expected that meters will be provided for the company's express and freight cars. Within the next week or two the cars on the Gloucester division will be fully equipped.

Five sizes of meters are being purchased, ranging in capacity from 50 to 200 amp. In addition to the passenger cars of the semi-convertible type to be equipped with meters, some of the remaining open cars operated by the road will be thus furnished, interchanging meters with closed cars used in the winter season.

The decision of the company to install these meters is a result of a vigorous campaign on the part of the management, in which the car-service employees are co-operating, to realize the benefits of more economical operation. Before the meters were ordered, representatives of the employees were asked to join the officials of the road in an investigation of the opportunities for saving energy in car operation with the aid of checking devices in the motor circuit.

Through a recent agreement by which the employees are to share in the economies gained in operation, realizing bonuses according to certain expense reductions, the interest of the employees in power saving has been heightened. The use of these meters will enable the company to study with nominal additional expense the economy of various types of car equipment on particular routes and in certain districts, the fitness of motors for stated services, suitability of gear ratios, effect of changes in schedule speed, etc., on power consumption, as well as continuously to check the condition of the mechanical and electrical equipment of the cars.

Record blanks are being developed for the use of motormen in taking and leaving cars equipped with meters,

and a number of trial meters tested on Revere and Lynn lines will remain in these services.

The meters will be equipped with cyclometer dials which register from 0 to 10,000 kw.-hr.

## Favorable Legislation Will Help Market

More Optimistic Viewpoint Justified—  
Effect of Rising Prices and Trying Delivery Conditions

Manufacturers of electric railway supplies who have been disappointed with the volume of orders from the transportation field, affected as it inevitably has been by inadequate fares and extraordinary operating costs, need not despair of better times if prospective legislation is realized looking toward increased net earnings of these important utilities. In Massachusetts, for example, the outlook is unusually good for the passage at the present session of laws establishing the principle of service-at-cost on the Boston Elevated Railway, the Bay State Street Railway, and the other properties within the State.

The general situation is now perfectly clear, even to the layman; some means of providing fresh capital to enable these utilities to do their vitally essential part in the public service of a great war period must be had, and the absence of any extended opposition to the service-at-cost principle indicates that if this legislation passes the hand-to-mouth policy in equipment and supply purchasing practiced for many months, one almost said years, past will give way to consistent and long-sighted buying.

The average electric railway purchasing agent has been anything but joyful of late, and with sufficient reason. Rising prices and the most trying delivery conditions known to the industry have combined to depress him; but now that the public has become educated to the war price standard and appears ready to pay the fair cost of service rendered it, including wages to capital as well as to labor, a more optimistic viewpoint is justified. Of course, many plants formerly exclusively devoted to the manufacture of transportation supplies are now working night and day on war orders, and doubtless some of these factories could not take on additional work for the traction properties without a capital outlay difficult to secure, at present.

The vital importance of electric railway transportation as a war tool on this side of the Atlantic, however, is recognized by army and navy officials, especially where the housing problem hampers the rapid development of shipbuilding and munitions plants. As a buyer of material the electric railway in many cases is entitled to priority consideration, and if the question of revenue is settled for the time being by wise legislation it will be safe to anticipate a decided expansion of business in the supply field.

## St. Louis Car Company's Strike Settled

War Labor Board Effects Agreement Allowing Increased Wages and Collective Treatment

The National War Labor Board authorizes the following:

Settlement of the strike of the employees of the St. Louis (Mo.) Car Company has been effected by the sub-committee of the National War Labor Board composed of C. E. Michael and Victor Olander, representing capital and labor, respectively. Following an all-day conference with representatives of both sides, the sub-committee submitted a form of agreement providing that the men should return to work immediately; that the company grant a temporary 10 per cent uniform increase in wages; that the company agree to meet with the chosen representatives of the employees to adjust all points of dispute; and that both sides agree to submit any points of disagreement to the National War Labor Board or its authorized committee, whose decision both sides agree to accept. This agreement was joined in by both sides.

## May Keep Copper at 23½

Recommendation that the maximum price of copper fixed by the government at 23½ cents a pound at Eastern refineries be continued for seventy-five days, beginning June 1, was made to President Wilson to-day by the Price-Fixing Committee of the War Industries Board. Final decision rests with the President, who is expected to issue a proclamation in a few days.

## Rolling Stock

New York State Railways (Syracuse Lines), Syracuse, N. Y., in its order for twenty-five cars, of which the specifications appeared in last week's ELECTRIC RAILWAY JOURNAL, specified the date of ordering as March, 1917, with delivery March, 1918.

L. L. Crump, Anniston, Ala., who, with others, it is reported, has raised \$100,000 to organize a company to build a railway to Camp McClellan, are in the market for second-hand or rebuilt cars, if the line is electrified, and for relaying rails. Mr. Crump and associates are also interested in gasoline motor cars, and request information on these.

Southern Public Utilities Company, Charlotte, N. C., is reported as having ordered four steel passenger cars from the Southern Car Company, High Point.

Bamberger Electric Railroad Company, Salt Lake City, Utah, on May 7, at Ogden, Utah, had its carhouse, twenty cars and several electric locomotives destroyed by fire. No salvage is reported on the property. It is said that the company had but six cars remaining and the system was nearly crippled. Efforts will be made to replace the rolling stock at once.



**Trade Notes**

H. W. Johns-Mansville Company, New York, N. Y., will have its office at Houston, Tex., at 424-426 Washington Avenue after July 1.

Railway Power & Equipment Company, New York, N. Y., has been organized with a capital of \$100,000. The directors are A. G. Logan and Ernest Stuart, Brooklyn, N. Y.

Elastic Car Waste Company, Philadelphia, Pa., has removed from Hope and Palmer Streets to Ninth and Columbia Streets, where it will have improved and enlarged facilities.

Eastern Tube & Tool Company, Brooklyn, N. Y., is now the name of what was formerly the Eastern Flexible Conduit Company. The company has added to its former line the manufacture of drill chucks and small tools. The factory is at 41 Gardiner Avenue, and the general office address is 594 Johnson Avenue.

Chester H. Pennoyer on April 7 became general sales manager of the National Conduit & Cable Company, New York, N. Y. He will devote much of his time to traveling in the Eastern States. Mr. Pennoyer is from Oakland, Cal., where he was physical superintendent of the Great Western Power Company during the construction of the big hydroelectric plant.

McGuire Cummings Manufacturing Company, Chicago, Ill., announces that Walter J. Cummings has succeeded his brother, John J. Cummings, deceased,

as president of the company. M. C. Fovil, formerly assistant superintendent of the company's plant at Paris, Ill., has been made superintendent of the Paris plant. No change of policy is contemplated in connection with the car and truck building activities of the company.

M. C. Turpin, formerly assistant to manager, Westinghouse department of publicity, has resigned to enter federal service as assistant to manager, technical publicity bureau, ordinance department. Mr. Turpin's work will be on the dissemination of information from the War Department to manufacturers, through the medium of the trade press. Mr. Turpin is a graduate of Alabama Polytechnic Institute and of Cornell University. After several years' experience in the construction and operation of central station plants, he entered the Westinghouse department of publicity in 1909. He is an associate member of the A.I.E.E., N.E.L.A., Pittsburgh Press Club, Pittsburgh Ad Club, and of the Illuminating Engineering Society

General Electric Company Schenectady, N. Y.: Bulletin 47070, entitled "Lowest Current Standard Unit Panels for General Power Service." It is in loose-leaf form for filing, illustrating and describing the system and equipment.

Earle Gear & Machine Company, Philadelphia, Pa.: Illustrated booklet, just off the press, entitled "Economy in Cold Sawing," descriptive of the company's "Lea Simplex" saws, both belt and motor driven, and adaptable to a wide variety of work.

Imperial Brass Manufacturing Company, Chicago, Ill: Imperial catalog No. 142, which describes in detail the full line of Imperial welding and cutting equipment and Imperial burning and lead burning outfits. Various industries which use welding and cutting equipment are listed. Five points of superiority claimed for the Imperial equipment are analyzed: Safety, practicability, durability, economy and portability. The Imperial mixing principle is also thoroughly explained. Several different sizes of Imperial outfits are illustrated and described fully, and all parts are cataloged.

Johnson Fare Box Company, Chicago and New York: Descriptive catalog of the Johnson registering fare box in its different forms for car and station platform operation. Views are shown of different types of metal tickets and change carriers sold by the company. The catalog also describes certain features of operation such as the effect of fare boxes on car schedules, their relation to conductors, maintenance, action with faulty coins or counterfeits, etc.

**New Advertising Literature**

Coppus Engineering & Equipment Company, Worcester, Mass.: Bulletin describing its turbo-blowers for underground work.

Walter A. Zelnicker Supply Company, St. Louis, Mo.: Bulletin No. 243 listing and describing apparatus, machines and railway specialties being offered by the company.

**NEW YORK METAL MARKET PRICES**

	May 15	May 22
Copper, ingots, cents per lb.....	23½	23½
Copper wire base, cents per lb.....	26½ to 26¾	26½ to 26¾
Lead, cents per lb.....	6.90	7.05
Nickel, cents per lb.....	50	50
Spelter, cents per lb.....	7.37½	7.50
Tin, Chinese,* cents per lb.....	\$1.05	\$1.03
Aluminum, 98 to 99 per cent., cents per lb.....	†32.10	†32.10

\* No Straits offering. † Government price in 50-ton lots, f.o.b. plant.

**OLD METAL PRICES—NEW YORK**

	May 15	May 22
Heavy copper, cents per lb.....	22	22
Light copper, cents per lb.....	19½	19½
Red brass, cents per lb.....	18	18½
Yellow brass, cents per lb.....	13	13
Lead, heavy, cents per lb.....	6	6
Zinc, cents per lb.....	5½	5½
Steel car axles, Chicago, per net ton....	\$41.52	\$41.52
Old carwheels, Chicago, per gross ton....	\$29.00	\$29.00
Steel rails (scrap), Chicago, per gross ton..	*\$34.00	*\$34.00
Steel rails (relaying), Chicago, gross ton..	\$60.00	\$60.00
Machine shop turnings, Chicago, net ton.	\$16.00	\$16.00

**ELECTRIC RAILWAY MATERIAL PRICES**

	May 15	May 22	May 15	May 22
Rubber-covered wire base, New York, cents per lb.....	27 to 34	27 to 34		
Weatherproof wire (100 lb. lots), cents per lb., New York.....	30.40 to 34½	30.40 to 36.10		
Weatherproof wire (100 lb. lots), cents per lb., Chicago.....	33.42 to 38.35	33.42 to 38.00		
T-rails (A. S. C. E. standard), per gross ton.....	\$70.00 to \$80.00	\$70.00 to \$80.00		
T-rails (A. S. C. E. standard), 500-ton lots, per gross ton.....	\$65.00	\$65.00		
T-rails, high (Shanghai), cents per lb.....	4½	4½		
Rails, girder (grooved), cents per lb.....	4½	4½		
Wire nails, Pittsburgh, cents per lb.....	3½	3½		
Railroad spikes, drive, Pittsburgh base, cents per lb.....	4½	4½		
Railroad spikes, screw, Pittsburgh base, cents per lb.....	8	8		
Tie plates (flat type), cents per lb.....	*3½	*3½		
Tie plates (brace type), cents per lb.....	*7	*7		
Tie rods, Pittsburgh base, cents per lb.....	*3½	*3½		
Fish plates, cents per lb.....	*3½	*3½		
Angle plates, cents per lb.....	*3½	*3½		
Angle bars, cents per lb.....	*3½	*3½		
Rail bolts and nuts, Pittsburgh base, cents per lb.....	4.90	4.90		
Steel bars, Pittsburgh, cents per lb.....	5	5		
Sheet iron, black (24 gage), Pittsburgh, cents per lb.....	4.90	4.90		
Sheet iron, galvanized (24 gage), Pittsburgh, cents per lb.....	5.80	5.80		
Galvanized barbed wire, Pittsburgh, cents per lb.....	4.35	4.35		
Galvanized wire, ordinary, Pittsburgh, cents per lb.....	3.95	3.95		
Car window glass (single strength), first three brackets, A quality, New York, discount, F. O. B. factory.....	80%	80%		
Car window glass (single strength, first three brackets, B quality), New York, discount, F. O. B. factory.....	80%	80%		
Car window glass (double strength, all sizes AA quality), New York, discount, F. O. B. factory.....	82 & 3%	82 & 3%		
Waste, woo (according to grade), cents per lb.....	11½ to 22	11½ to 22		
Waste, cotton (100 lb. bale), cents per lb.....	13 to 13½	13 to 13½		
Asphalt, hot (150 tons minimum), per ton delivered.....	\$38.00	\$38.00		
Asphalt, cold (150 tons minimum, pkgs. weighed in, F. O. B. plant, Maurer, N. J.), per ton.....	\$42.00	\$42.00		
Asphalt filler, per ton.....	\$45.00	\$45.00		
Cement (truckload lots), New York, per bbl.....	\$3.20	\$3.20		
Cement (carload lots), Chicago, per bbl.....	\$3.26	\$3.26		
Cement (carload lots), Seattle, per bbl.....	\$3.60	\$3.60		
Linseed oil (raw, 5 bbl. lots), New York, per gal.....	\$1.59	\$1.59		
Linseed oil (boiled, 5 bbl. lots), New York, per gal.....	\$1.62	\$1.58		
White lead (100 lb. keg), New York, cents per lb.....	10	9		
Turpentine (bbl. lots), New York, cents per gal.....	42½	51½		

\* Government price.