# Electric Railway Journal

A CONSOLIDATION OF

Street Railway Journal and Electric Railway Review

VOL. XXXVIII NEW YORK, SATURDAY, DECEMBER 23, 1911 No. 26

PUBLISHED WEEKLY BY

## McGraw Publishing Company

JAMES H. MCGRAW, President; C. E. WHITTLESEY, Sec'y and Treas.

239 WEST THIRTY-NINTH STREET, NEW YORK

TELEPHONE CALL: 4700 BRYANT. CABLE ADDRESS: STRYJOURN, NEW YORK.

CHICAGO OFFICE.....1570 Old Colony Building
CLEVELAND OFFICE.....1021 Schofield Building
PHILADELPHIA OFFICE.....Real Estate Trust Building
EUROPEAN OFFICE....Hastings House, Norfolk St., Strand, London, Eng.

TERMS OF SUBSCRIPTION:

For 52 weekly issues, and daily convention issues published from time to time in New York City or elsewhere: United States, Cuba and Mexico, $3.00 per year; Canada, $4.50 per year; all other countries, $6.00 per year. Single copies, 10 cents. Foreign subscriptions may be sent to our European office.

Requests for changes of address should be made one week in advance, giving *old* as well as new address. Date on wrapper indicates the month at the end of which subscription expires.

NOTICE TO ADVERTISERS.

Changes of advertising copy should reach this office ten days in advance of date of issue. New advertisements will be accepted up to Wednesday, 9 a. m., of the week of issue.





Entered as second-class matter at the post office at New York, N. Y.

*Of this issue of the* ELECTRIC RAILWAY JOURNAL, 8500 *copies are printed.*

*The Association of American Advertisers has examined and certified to the circulation of this publication. The figures of circulation contained in the Association's report only are guaranteed.*

*ASSOCIATION OF AMERICAN ADVERTISERS.*

No. A—82. *Whitehall Bldg., N. Y. City.*

NEW YORK, SATURDAY, DECEMBER 23, 1911.


CONTENTS.



### Pay-As-You-Leave

The Hudson & Manhattan Railroad has announced its plan of collecting a 7-cent fare from passengers from Jersey City to uptown New York. It will collect 5 cents when the passenger enters the train and 2 cents when he leaves. Although uncommon, the collection of a fare when a passenger leaves a train is not unprecedented. It is followed at certain of the Coney Island terminals of the Brooklyn lines, and on certain of the underground roads in London and on the underground and elevated line in Berlin the passenger has to surrender his ticket at the station at which he leaves the train. This plan is also followed on many steamboat lines in this country. There does not seem to be any serious objection to it, provided the means of collecting the tickets are such as not to delay the departure of passengers from the station. On the trip from New York to New Jersey a different plan is followed, because most of the passengers leave the train at one or two points in New Jersey. Here the passenger from an uptown New York station will be required to purchase a 7-cent ticket, but if he should leave the train before it crosses under the river, 2 cents is refunded, so that the fare within the city of New York will remain 5 cents.

### The New Jersey Low Fare Case

In a decision denying a request for lower rates of fare on a suburban line operated by the Trenton & Mercer County Corporation, an abstract of which was published in the issue of the ELECTRIC RAILWAY JOURNAL for Nov. 25, 1911, page 1117, the Board of Public Utility Commissioners of New Jersey referred to the charge that dividends were paid in the past on some of the properties of the present system, but expressed the opinion that the payment of such dividends was possible because the property was not maintained in proper physical condition. If this was the case, the board acted both conservatively and wisely in withholding its judgment on the request for lower rates of fare until at least the actual earning power of the property under present conditions can be demonstrated. If dividends are paid by established companies under the circumstances charged they are paid at the expense of the property. In this instance the railway has been undergoing financial and physical rehabilitation and it does not appear that present practices are the subject of complaint. A one-fare city system depends for its profit upon the average haul. Many hauls on suburban or outlying lines of city properties are excessive in length and cannot be considered profitable if judged on the basis of cost alone. Their justification is that sometimes they increase the number of people carried into the business districts of cities, and thus add to the probable amount of short-haul traffic.

### Association Alliance in the Central West

The final steps necessary in the new relationship between the Central Electric Railway Association and the Accounting Conference, which has done good work in the Central West for several years, were taken last week. The conference takes the new name of the Central Electric Railway Accountants' Association and becomes an auxiliary of the older and larger Central Electric Railway Association. As there is also an allied Central Electric Traffic Association, the activities of the parent body and its smaller co-operating organizations are departmentalized and placed in a more satisfactory condition for united movement than ever before. It is interesting to note that the papers read before the accountants at their final meeting as an independent body dealt largely with the subject of co-operation, the spirit of which is manifest in the step just taken. The Accounting Conference was established first in 1907. The chairman at that time was M. W. Glover, now auditor of the Mobile (Ala.) Light & Railroad Company. The membership has increased steadily and from the beginning the conference has accomplished results that have been of much value to interurban lines. The accounting problems of these lines differ in some ways from those of the older types of electric railways. They therefore require some changes in methods and a consideration which can be given effectively in an association like that existing in the Central States, the membership of which is composed largely of companies of this character.

### Overhead Line Maintenance

Engineers have found that simplicity in the design of overhead line material is a factor increasing its life. This is true for two reasons: first, there are fewer parts to corrode, and, second, it is more easy to protect those parts against corrosion. The importance of simplicity is particularly shown in the type of bracket or mast arm that is giving the most satisfactory service. In catenary trolley construction the I-beam and T-beam brackets are being purchased almost exclusively by the companies which give careful attention to the life of overhead lines. We find, however, that some of the smaller roads that buy intelligently do not pay the attention which they should to the maintenance of their overhead material. The protective covering which these brackets often receive at the shops is lusterine or coal-tar paint. It gives a good appearance to the arm when it reaches the purchaser because it stands the rough handling in shipment, but it has very little value as a permanent protection against corrosion. We believe that if a shop coat of mineral paint, such as red lead, iron oxide or graphite, was specified, and a second coat of the same paint was applied at the destination, just before the bracket was put on the pole, an economy worth while would result. If this method of painting is used the necessity for another coat would be postponed at least five years, and the life of the arm would be extended at least eight years if it received another coat of paint. The brackets, however, should receive the same attention from the paint standpoint as steel bridges, if they are to remain in good condition, and if a little thought is given to the preparation for painting it could be done at a surprisingly low cost per bracket.

## THE COMPLAINT DEPARTMENT

It has been well said that the duty of the modern claim agent is not so much to adjust accidents after they have taken place as to prevent their occurrence, just as the principal function of the physician of to-day is to prevent the spread of disease rather than to cure it. In the same way the duty of the railway manager may be said to be to forestall complaints rather than to discourage them. The experience on practically every road, we believe, is that the proportion of complaints which are really justified amounts to a very small percentage of the total number received, and the number received is undoubtedly an even smaller percentage of those expressed verbally to conductors and in private conversation. Now, if it is true that the railway company can satisfactorily explain a very large proportion of the complaints, is it not to its advantage to do so, because it thereby can correct an erroneous impression in the mind of the aggrieved person? But if it cannot satisfactorily answer the complaint—that is, if the dissatisfied passenger or citizen calls attention to some bad practice which the company is able easily to correct—the complaint is even more valuable. It is expert advice on the proper conduct of the road, because it conduces to good service in matters which hitherto have escaped the attention of the officials in charge. Another and still more important reason for paying attention to a complaint, whether legitimate or not, is that the company will thereby please the public. The self-esteem of the man whose complaint has received attention is gratified, and the chances are that he will be just as ready to praise the company to his acquaintances in the future as he was formerly to make it the object of his criticism.

With these thoughts in mind, the New York State Railways of Rochester began about eleven months ago the new policy of treating complaints from patrons, described elsewhere in this issue. Up to that time the plan had been followed, as on many other roads, of having all complaints answered by the transportation department, as that is the department which is usually most concerned with the cause of the complaint and its remedy. A moment's thought, however, will show that such a plan is illogical. It is like asking a man to audit his own accounts. He might be able to explain the reasons which led him to adopt one method of accounting or another, but for this reason he would be less able to recognize mistakes of judgment than an outsider. Hence the complaint department in Rochester was made entirely independent of the transportation department and an adjunct of the work of the vice-president and general manager.

Another feature of the Rochester plan is that criticisms are cordially invited. Such a policy will probably at first greatly increase the number received, but it should decrease the number of unintelligent complaints, and all others are welcome. It also has this advantage. Many persons are accustomed to express general dissatisfaction with the service of a public utility company whenever they think that they are being inconvenienced by that service in any way, but these same persons will often find that their criticism is groundless if they are asked to analyze and give formal expression to it in a letter to the company. On

the whole, therefore, the results obtained in Rochester have proved very successful from every point of view. The company has been benefited and the public has a better realization of the practical problems and physical limitations of city railway service.

## THE RAILROAD SECURITIES REPORT

The study of the subject of railroad securities by the commission appointed by President Taft, an abstract of which was given in our issue of last week, is a valuable, comprehensive treatment of the issues concerned and, considering the magnitude and controversial nature of the subject, is remarkable for its conciseness. It offers recommendations designed to separate certain good and bad practices in railway finance, and it should receive widespread and effective consideration. It is an attempt, approved by high governmental authority, to point out a way for the settlement of a serious misunderstanding. Several of the points discussed are of fundamental importance to all utilities, because the tendencies of federal regulation will probably in time become the tendencies of regulation generally throughout the country, and special attention is therefore called to these matters.

It appears, for instance, that the members of the commission dissent from some of the aims and results of state regulation. Thus, the commission lays stress upon the importance of publicity as a protection to investors, and it believes that a more definite government policy in the direction of publicity would be more effective as an immediate remedy for existing conditions than the strict restrictions on the issue of securities which are laid down in various state laws. That is to say, the commission would compel railways to make public all the facts regarding the purposes to which proceeds of their issues of securities are to be put, and this information would be available for investors. The policy thus suggested is much more moderate than the tendency of regulation in states where strong commission laws have been passed and the commissions, by approving new issues of securities, give what is construed by the public as a guarantee. It is the opinion of the Railroad Securities Commission that such a guarantee should never be given.

Looking into the future, the commission believes that some further legislation will be imperative, and the discussion is evidently intended in large part to lay down a set of principles to guide the country when this time shall arrive.

The theory of railway stock issues is discussed in one way or another in various sections of the report. It is true that stock represents a share in the ownership of the property and that in many instances the par value on the face of the certificate is nominal and the stock represents an investment that is less than the par value named. In many other instances the stock represents an investment of 100 per cent; but in both cases the market value is fluctuating and does not bear a permanent parity with either the par value or the investment. The remedy to which the commission turns in order that the shares may purport to represent only this pro rata interest in the ownership is the elimination of the dollar mark from the face of certificates. It is, of course, impracticable to apply this plan to the great bulk of securities now outstanding. A holder of stock who pays par has an investment in a company that should have values equal to that sum, and the earnings should permit a reasonable return. With good management and protection of the capital, there should be a surplus in good years as a safeguard against poor years. Under such circumstances there is no reason why a holder should unwillingly surrender a certificate of this nature for one bearing no par value. But, if legally feasible, the plan might be applied to properties whose stock represents nothing but admitted expectations and, as the commission suggests, it offers excellent facilities for reorganizations and consolidations where there is a duplication of capital. This plan was carried out in the rearrangement of capital in the Chicago Union Traction reorganization. It was adopted in the distribution of certificates of interest in ore lands to shareholders in the Great Northern Railway and by holding associations like the Boston & Worcester Electric Companies and Boston Suburban Electric Companies.

No language indicates more strongly the attitude of the commission toward publicity than its declaration that the companies must indicate fully the condition of their capital and operating accounts and must not attract bondholders by representing that there has been a payment of 100 cents when there has been a payment of only 50 cents. There has been marked progress in the protective features of mortgages securing bond issues, and it would be well if the higher standards recommended could be exacted in all trust deeds of this character. Some forms of mortgage have practically permitted the capitalization of expenditures that should properly be charged to operating expenses. The higher standards of corporate management and integrity in the accounts have contributed to the revision of such practices.

The commission says that an attempt to scale down old securities is clearly out of the question and that conditions of public expediency forbid it. If these clear statements are read in connection with the ensuing words in which the report approves physical valuations, is it to be inferred that the commission, notwithstanding the results of valuation, would leave outstanding capitalization alone? This is desirable wherever possible and it is the policy that should prevail, although in cases of unfortunate or heinous mismanagement it is doubtful if governmental sanction could or should prevent a collapse. Enforced and complete publicity respecting the accounts will do much to prevent mismanagement of either character in public utilities. But, if the government is to put its hands on securities at all, it should protect values in all cases possible, not destroy them.

In their attitude toward securities the policy of regulating commissions should not be reactionary in the sense that it would condone a return to the loose ways of the past, but it should be conservative in the sense that it realizes the dangers to the public welfare of the adoption of a plan by which initiative and economy will go unrewarded and security holders will be so fearful of a lack of protection and a return equal to the risk that they will be unwilling to advance additional capital.

# Efficiency in Handling Equipment in Brooklyn

A Description of the Methods by Which the Mechanical and Transportation Departments Secure the Maximum Service and Economical Use of Cars

Following a general policy outlined a few years ago by the management of the Brooklyn Rapid Transit System, beneficial results, sought through the co-operative methods of the mechanical and transportation departments, have been secured and are evidenced by the increased efficiency with which equipment is handled.

As described in previous articles in the Electric Railway Journal, standardization of equipment has been carried to completion, partially on a maintenance basis and partially on an overhauling basis. This work has been carried into the various departments. For instance, all types of control apparatus on elevated cars have been made inter-operative so that the yard crews are able to make up trains regardless of the types of control on the different cars. This has facilitated the make-up of trains materially and has lessened the number of yard employees required for this work.

With the standardization of equipment finished, the next step in the policy has been to standardize methods of inspection, repair and overhauling in the various shops, so that the output of each might be turned over to the transportation department ready to give uniform service on the various lines of the company.

Efficiency and economy have been the guides in the prosecution of this work. These two principles have been held constantly before superintendent and foreman alike, who have been invited and encouraged to devise new methods whereby the forces under their direction might render better accounts of time expended and material consumed. At recurrent meetings these innovations have been discussed and their operation has been tested from shop to shop, until the practical results obtained justified adoption throughout the system. Old methods have been discarded as fast as improvements rendered them obsolete; work of a like nature has been segregated whenever possible and profitable, and, while the spirit of rivalry between shops has been maintained as a constant incentive to good work, efforts in the main have been directed so as to secure a uniform output of high order.

A strict adherence to schedules in summer providing for the overhauling of winter equipment, and *vice versa,* has contributed to the policy of "readiness" which characterizes the work of this branch of maintenance. Particular stress has been laid on the economical use of material and the necessity of exhausting available supplies before the withdrawal of new supplies from the storerooms. This plan, while robbing the scrap heap, is cultivating in each workman the spirit of economy and is reflected by reduced requisitions.

Like principles have applied to the renewal or exchange of parts as equipment is passed through the shops for inspection, repair or overhauling. Waste mileage for these latter purposes has been reduced to a minimum by the policy of localizing repair facilities for many details. Cars are sent to the main shops only when overhauling or extensive repairs are necessary. Promptness in the handling and return of equipment is noticed, and this is accompanied by equal promptness in delivery. The shops are thus freed from surplus storage and the transportation department is permitted to operate available equipment in the most advantageous manner.

Supplementing the increased efficiency which has been effected through improvement in shop methods, radical departures are likewise noticeable in the transportation department. Some of these have arisen through physical changes in traffic conditions; others have resulted from better adjustment and distribution of equipment to meet conditions of travel, which vary for the different lines of the system; all reflect more minute attention to operating detail and a more careful study of the changing requirements which develop within a community as extensive as that served by the Brooklyn Rapid Transit System..

The success obtainable by these combined efforts is apparent in the accompanying table, which indicates clearly that each unit of equipment has been made to bear its share of the increased business, without unnecessary additions to the item of fixed charges.

Table Showing Increased Mileage per Day per Unit of Equipment of the Brooklyn Rapid Transit System.

| | Surface Division. | | | Elevated Division. | | |
|---|---|---|---|---|---|---|
| Year. | Cars Available. | Car Mileage. | Average Miles per Car. | Cars Available. | Car Mileage. | Average Miles per Car. |
| | | | March (typical winter month). | | | |
| 1908... | 1624 | 3,561,662 | 70.7 | 927 | 2,395,394 | 83.4 |
| 1909... | 1624 | 3,672,469 | 72.9 | 928 | 2,567,190 | 89.2 |
| 1910... | 1624 | 3,909,178 | 77.6 | 928 | 2,760,125 | 95.9 |
| 1911... | *1644 | 4,082,414 | 80.1 | 928 | 2,706,202 | 94.1 |
| | | | August (typical summer month). | | | |
| 1908... | 1953 | 3,901,334 | 64.4 | 927 | 2,860,222 | 99.2 |
| 1909... | 1953 | 4,115,610 | 68.0 | 928 | 3,344,060 | 116.2 |
| 1910... | 1953 | 4,207,354 | 69.5 | 928 | 3,163,218 | 110.0 |
| 1911... | *1965 | 4,451,035 | 73.1 | 928 | 3,183,090 | 110.6 |

*Additional cars secured through reconstruction of obsolete equipment.

From this table it will be seen that with the same equipment, under improved methods, the average daily car mileage has been increased on the surface division 13.3 per cent for typical winter months and 13.5 per cent for typical summer months; the corresponding increases for the elevated division are respectively 12.8 per cent and 11.5 per cent.

The difference between the average daily mileage for the typical winter and summer months on the surface division is due to the greater number of units and the fact that for the summer business this additional equipment is required during only a few hours of the day. On the elevated division the excursion business with express service accounts for the greater mileage per unit in the summer as compared with the winter months.

### Changes in Routes

During the period in which these results have been secured extensive changes in routes have been made to meet service requirements. The extension of the Interborough Rapid Transit subway to Brooklyn necessitated a readjustment of all the surface lines which had previously crossed the Brooklyn Bridge. At the subway stations between Borough Hall, Brooklyn, and Atlantic Avenue, the subway terminal station in Brooklyn, trolley loops were constructed by the Brooklyn Rapid Transit System, and short-line service was installed to care for business centralized at these points. Not only was congestion on the bridge materially reduced, but headways and running time were shortened on the loop service and patrons were carried to their homes with increased rapidity and comfort.

This removal of a portion of the through service to the Manhattan side of Brooklyn Bridge improved, by reason of reduced congestion, the remaining service over the bridge, while greater attention to detail permitted a gradual increase in the quantity of through service to meet the growing needs of such routes. This does not mean that the number of cars operated across the Brooklyn Bridge was reduced, but that the relief of passenger congestion at the terminals permitted more rapid loading and freer movement of the cars entering and departing therefrom. As a matter of fact, by increased attention to the detailed requirements of this operation and freedom of movement resulting therefrom the number of cars was gradually in-

creased until at the present time more units pass over this structure per hour than ever before.

In addition to the service at the surface loops at subway stations, short-line service has also been inaugurated at other points wherever the characteristics of travel permitted, so that cars which previously had made but one or two trips during rush hours have been returned three and even four times to reduce the congestion at peak hours. The diversion of fully loaded cars from congested downtown streets to parallel routes, which re-enter the main line farther away from the congested district, has also facilitated the handling of heavy business on trunk lines. Every practicable means is employed by the transportation department to keep the lines clear and the line headways uniform. Time points are located, to which crews run on schedule at the maximum speed consistent with safety, while running time is changed as congested districts are reached or passed.

### DISTRIBUTION OF CARS

The cars are so distributed at the different terminals as to meet the requirements of travel in the best possible manner. In this distribution adjustment is made of the different types of equipment in order that the varying needs of the extensive area served may be met with discrimination against none and justice to all. The higher geared motors are reserved largely for districts where physical conditions permit their use; cars of different seating capacities are operated in different localities or in the same locality at different hours of the twenty-four, the object being to serve each community according to its needs.

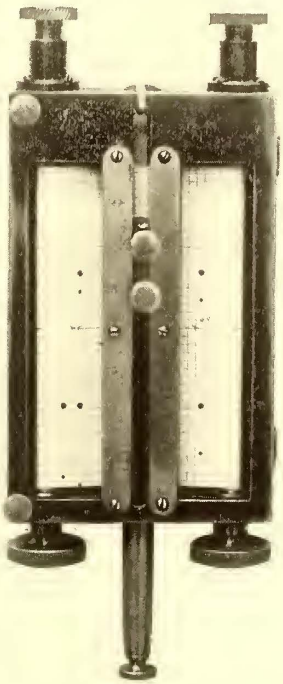
On lines where double-truck cars on a normal headway furnished more seats than the business offered the character of service has been improved by reduction in the headway and the use of a smaller car; the increase in platform cost in such cases has been made up by the saving incident to the operation of lighter equipment.

On the elevated division similar improvements are noticeable not only in the character of service but also in the more judicious use of equipment. Certain lines are operated as express lines between given points where the combined headways of all lines using the same tracks furnish reasonable service to the stations thus passed by some lines. During rush hours certain trains in the reverse direction to that of the heavy travel are operated light so as to permit a more prompt use of such trains in the direction of the heavy movement. Short-line service has been installed wherever practicable, with increased comfort to the great majority of patrons served.

Travel conditions are kept under constant supervision in order that increasing needs or changing requirements may be met with modified schedules.

### TABULATING DEVICE USED

In this latter work on the surface division considerable assistance is derived from the use of a patented tabulating device which furnishes graphic records showing the relation between seats and passengers and thus permitting the chief dispatcher to concentrate his attention solely on those portions where modifications are necessary. This device, which is illustrated herewith, consists essentially of a metal case, beneath the open face of which is passed, by means of tangent screws, a continuous strip of cross-section paper 4 in. wide, upon which the record is made. Directly above the open face is a double-graduated scale carrying two sliding circular punches of different diameters.

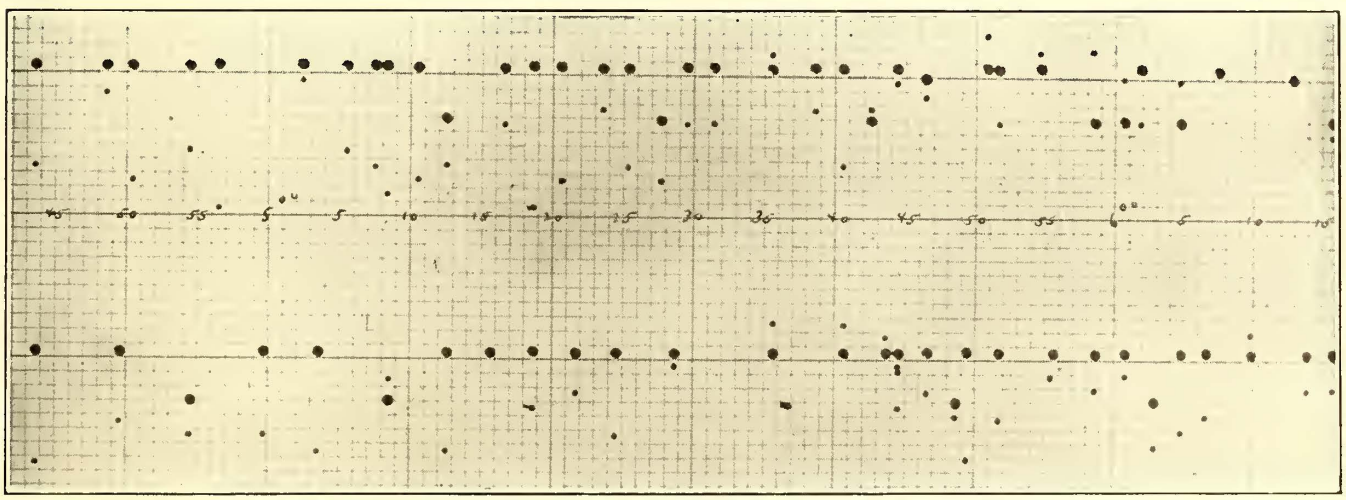


**Efficiency in Brooklyn—Tabulating Device Used in Counts of Passengers**

Holding the instrument in one hand, the observer moves the paper so that the time units appearing along the media line of the record pass the edge of the graduated scale to correspond with the actual line as shown by a watch carried on the wrist. As a car approaches the known seating capacity is recorded by moving the larger diameter punch to proper position on the graduated scale and depressing for perforation. As the car passes the observer the load carried is recorded in a similar manner by setting and depressing the smaller punch.

The section of the record published herewith is a typical one taken from the records furnished by an observer to the chief dispatcher. Above the media line, reading from this line up, is the record of east-bound service, while the corresponding west-bound service, read from the bottom of the sheet, appears below. The vertical intervals on the record correspond to five seats or passengers and agree with the graduation on the scale. The horizontal intervals correspond to two minutes of time, each ten-minute interval being represented by the heavier line.

The perforations are read in pairs, an overload being indicated when the smaller circle appears above the larger, and an underload when the converse appears. The amount of overload or underload is the vertical distance between



**Efficiency in Brooklyn—Actual Record of Passengers Made by Tabulating Device**

the larger and the smaller circle, commuted into passengers by the equivalent of five passengers for each vertical interval of the record paper. Aside from indicating whether insufficient or excess service is being operated, the record shows clearly all irregular headways arising from blocks or other causes. When operating deficiencies are apparent blueprints may be made directly from the original record

**TOMPKINS AVENUE**

**Run No.** ..... **Date** .....

..... *Conductor*

Use one column for each Car. First enter time of taking car, then car number and below that the total number of trips made on each route operated over. From one terminal to another is ONE trip. A complete round trip between terminals is Two Trips. If a car is turned back short of terminal or if from any cause the printed terminals will not cover actual operation; enter necessary terminals in blank spaces provided and directly opposite in proper car column the number of trips

| ROUTES | | TIME | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TERMINALS | TERMINALS | CAR NO. | | | | | | | |
| Carroll Street | to Depot | | | | | | | | |
| " " | " Delancey St. | | | | | | | | |
| " " | " Broadway Ferry | | | | | | | | |
| " " | " St. Johns Place | | | | | | | | |
| " " | " Bergen St. | | | | | | | | |
| Prospect Park | " Broadway Ferry | | | | | | | | |
| " " | " Delancey St. | | | | | | | | |
| " " | " Bergen St. | | | | | | | | |
| " " | " Depot | | | | | | | | |
| Bergen & Kingston | " Delancey St. | | | | | | | | |
| " " | " Broadway Ferry | | | | | | | | |

Efficiency in Brooklyn—Route Card Used by Conductors for Record of Trips

and forwarded for attention to the assistant superintendent concerned.

Before the introduction of this instrument like data were obtained in the form of a numerical equivalent. Not only were the compilations laborious, but the mass of resultant figures tended to confuse and had the additional objection that they represented so much wasted energy when they were indicative of satisfactory service on the line.

With the graphic record minute analysis of a dozen lines consumes less time than a single line did under the old form, which is quite an item on a system comprising more than seventy lines. The chief value of the present record lies in the fact that it enables the chief dispatcher to cover all lines more frequently and thus keep in closer touch with changing conditions and their corresponding requirements.

For the elevated division a modification of the above device is in use, overload and underload being blocked out in different colors at horizontal intervals corresponding to headway. A similar record of service is kept on the elevated lines by clerks in the signal towers, who make a tabulated record as the cars pass. Employees assigned to the preparation of these two types of records become very expert, not only in the manipulation of the instruments, but also in determining loads. The basis of the latter calculations is the known seating capacities of the various types of cars.

No difficulty has been experienced in the calculation by employees of load conditions of cars. The men who make the records know the seating capacity of the various types of cars operated and are able to determine quickly the approximate number of passengers standing in case of a standing load and the number of vacant seats in cars in which all the seats are not occupied. All employees engaged in this work are from the transportation department. Six or eight are required to record the loads of the surface cars.

### MILEAGE RECORDS

As an adjunct to this minute supervision of operation, great attention is paid to the mileage records which furnish for different lines the measure of relative productiveness. These records are kept under three separate headings to show car miles, seat miles and ton miles, each item having a distinctive meaning in the analysis of operation. The work of every car is recorded each day and a segregation of these unit compilations is made to cover car series of like weights and like seating capacities.

On the surface division each conductor is furnished with a route card, a sample of which is reproduced herewith headed "Tompkins Avenue." On this the conductor enters the number of single trips performed by each car under his charge during the day. At the close of the day's work these are turned in to the dispatchers at the various terminals, who check them against the records of scheduled operation, reconcile departures therefrom, and when approved transmit them to the mileage computor for the terminal. The latter segregates opposite the car number on a sheet headed "record of service," which is reproduced herewith, the various trips made by this car while in charge of the several conductors who have operated it during the day.

The work of all cars on a given line is then brought together on a sheet headed "surface division," which is reproduced on page 1271, cars of like series and seating capacities being segregated. The latter compilations are then transmitted to the comptroller's office, where the final computation is made to determine the resultant car miles and seat miles. From car mileage, by series, the corresponding ton miles are determined.

The care exercised in building up the data described

## RECORD OF SERVICE

| Rt. | Dis Mi | TERMINALS | Rt. | Dis.Mi. | TERMINALS | Rt. | Dis.Mi. | TERMINALS |
|---|---|---|---|---|---|---|---|---|
| 1 | | to | 6 | | to | 11 | | to |
| 2 | | to | 7 | | to | 12 | | to |
| 3 | | to | 8 | | to | 13 | | to |
| 4 | | to | 9 | | to | 14 | | to |
| 5 | | to | 10 | | to | 15 | | to |

| Car No. | Run | Time | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Miles | Car No. | Run | Time | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Miles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Line Date Schedule No. Patch

Efficiency in Brooklyn—Sheet Used for Computation of Miles Made by Each Car

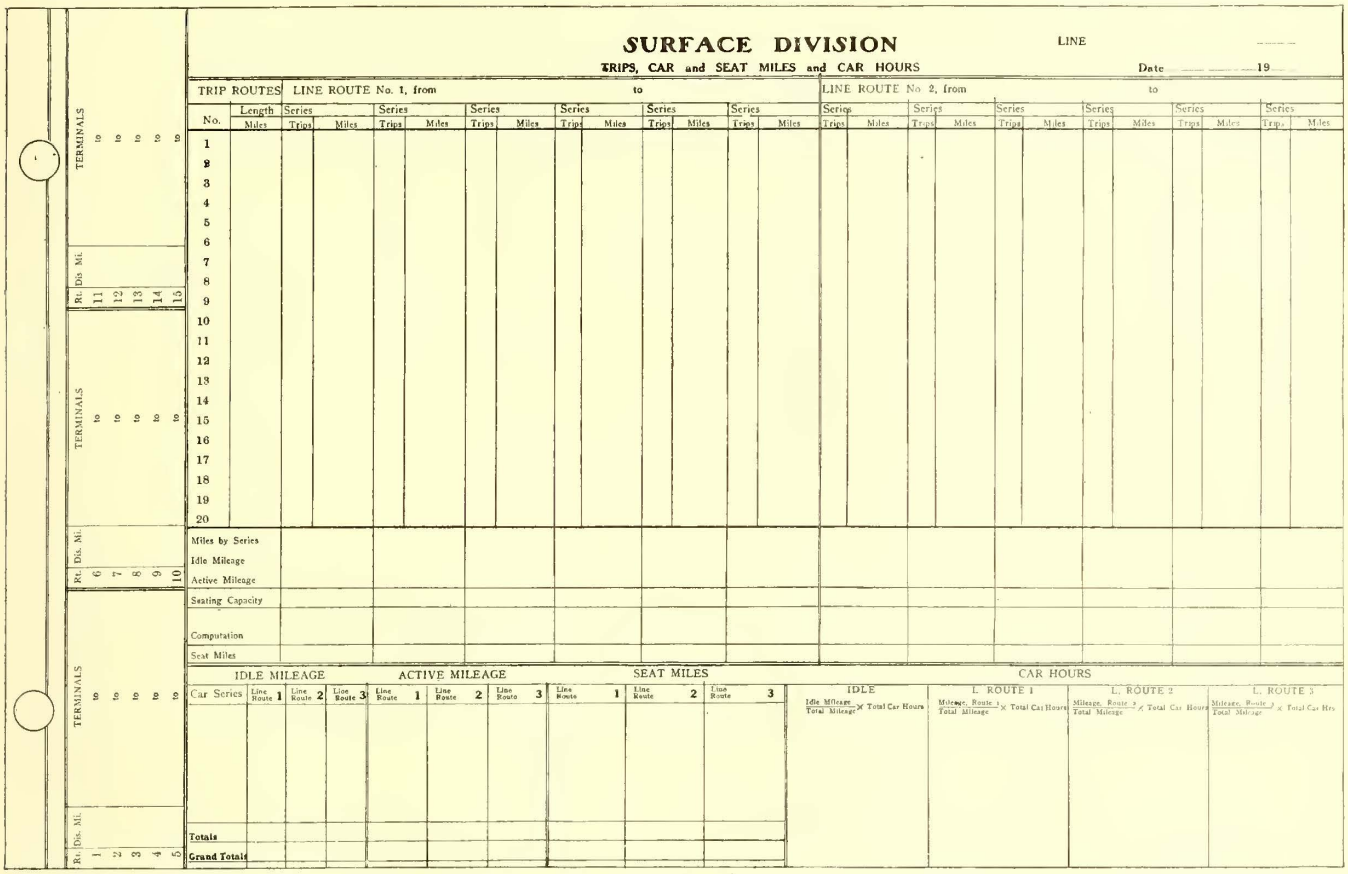
above measures the importance attached thereto by the management of the company. It serves to check current consumption, waste mileage, and the maladjustment, distribution and operation of equipment.

A substantial reduction in miscellaneous mileage on the system has been effected by a systematic elimination of the indiscriminate use of service cars. All material carried is handled as freight and a charge for the transportation is made against the department concerned.

## ADVANCE IN PRICE OF COPPER

The efforts which selling and producing interests have been making for the last few months to advance the price of copper were rewarded this week by sales of electrolytic copper at 14½ cents per pound. This is an increase of nearly 2 cents over the price asked two months ago.

In spite of the advance the consuming element continues to purchase in small amounts for present needs, adhering



SURFACE DIVISION

TRIPS, CAR and SEAT MILES and CAR HOURS

LINE _____

Date _____ 19__

TRIP ROUTES | LINE ROUTE No. 1, from ____ to ____ | LINE ROUTE No. 2, from ____ to ____

No. | Length Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles | Series Trips | Miles

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Miles by Series

Idle Mileage

Active Mileage

Seating Capacity

Computation

Seat Miles

IDLE MILEAGE | ACTIVE MILEAGE | SEAT MILES | CAR HOURS

Car Series | Line Route 1 | Line Route 2 | Line Route 3 | Line Route 1 | Line Route 2 | Line Route 3 | Line Route 1 | Line Route 2 | Line Route 3 | IDLE | L. ROUTE 1 | L. ROUTE 2 | L. ROUTE 3

Idle Mileage / Total Mileage × Total Car Hours | Mileage, Route 1 / Total Mileage × Total Car Hours | Mileage, Route 2 / Total Mileage × Total Car Hours | Mileage, Route 3 / Total Mileage × Total Car Hrs

Totals

Grand Totals

TERMINALS | Rt. Dis. Mi. | TERMINALS | Rt. Dis. Mi. | TERMINALS | Rt. Dis. Mi.

**Efficiency in Brooklyn—Sheet Used for Segregation of Cars of Like Series and Seating Capacities on Each Line**

Such scrutiny is held to be essential to success in the operation of a system like that of the Brooklyn Rapid Transit System, whose abnormal rush-hour business, compared with normal riding, is equaled by that of few companies. Most of the passengers are bound to Manhattan in the morning and are carried therefrom in the evening through a mile or more of congestion, and then distributed on rapidly diverging lines over an area of 80 square miles.

## INTERSTATE COMMERCE COMMISSION REPORT

The twenty-fifth annual report of the Interstate Commerce Commission criticises the position taken by the Commerce Court on orders of the commission. Recommendations for additional legislation made by the commission include the following:

That Section 6 be amended to require telephone, telegraph and cable companies to publish, file and post tariffs.

That the adoption of a uniform classification be required.

To provide additional safeguards: (a) By standardization of operating rules; (b) by the adoption of steel cars; (c) by amending the hours-of-service law; (d) by requiring the use of the block signal system.

That the commission be relieved of jurisdiction of street railways in the District of Columbia.

To provide for the regulation and control of capitalization and suitable provisions for the valuation of railway property.

to the policy prevailing during the greater part of the year. This attitude has been due partly to industrial depression and partly to the fact that on account of excessive production little concern has been felt regarding future prices.

Producers have based the present rise on the decrease reported recently in foreign stocks, upon the large reduction in stocks in this country shown in the last two reports of the Copper Producers' Association, and upon their belief that supplies held by consumers are low. The October statement showed a decrease of nearly 6,000,000 lb. in stocks, whereas an increase of nearly an equal amount had been expected, and a decrease of over 23,000,000 lb. was reported in November, a figure largely in excess of general expectation.

Fractional advances in price followed the October statement, quotations ranging from 12½ cents to 12¾ cents per pound and this figure was advanced 13 cents by the leading selling agency by the end of November. Since the publication of the November report the market has been forced steadily upward.

It is well known that many of the producing companies must operate at full capacity in order to make a profit at present market prices and that the present demand is not sufficient to absorb the entire output of the various mines at full capacity, or even the amount now produced.

A loan of $2,000,000 has been authorized by the Germiston (South Africa) municipality for the construction of tramways, a sewerage system and other public works.

# New Complaint Department in Rochester

Organization and Work of the Independent Department Established to Make Careful Investigation of All Complaints and Satisfying Reports to Patrons Who Find Fault

A new department created for the purpose of giving systematic and careful attention to all complaints received by the company has been established by the New York State Railways, Rochester lines. This department was established on Feb. 1, 1911, by E. J. Cook, vice-president and general manager, with the idea that it would afford satisfaction both to the public and the company. The department has therefore been in operation nearly a year and, by satisfying those who have made complaints, has proved to be of distinct value in the organization.

The primary idea which was responsible for the establishment of the department was that under the old practice, when complaints were made for instance against anyone in the transportation department, the investigation was conducted by that department. To avoid a condition where a department was, in effect, investigating itself, it was the plan of Mr. Cook that complaints should be investigated by a separate department. The complaint department as organized reports directly to the vice-president. The principle underlying the work of the department is that there shall be a thorough investigation of every complaint received and that a careful, responsible employee shall make a verbal report of the circumstances and facts in each case to the person who made the complaint. The thoroughness with which the work is done is indicated by the statement that it costs the company on an average between $3 and $5 to investigate and report on each complaint received. No complaint is considered settled until the complainant expresses himself as satisfied.

Before the establishment of the present complaint department complaints that were received by the company were usually referred to the transportation department. No one in the general office, however, was specifically assigned to receive complaints over the telephone. Written complaints were sometimes assigned to officials or employees who knew the complainant. It was found by contact with people at different meeting places that they were not satisfied about the consideration given to complaints. If a detailed investigation was made of a complaint, it was found that, owing to the fact that no one person was directly responsible for an answer, the complainant was not always properly notified of the results of the inquiry. If, under the plan of having no one person responsible, a complaint was received over the telephone, it happened frequently that insufficient details were secured to enable the company to make a proper investigation. Under the previous system, if a conductor gave a wrong transfer the complaining passenger was told to go to the office of the company and the proper refund would be made.

Many of the complaints made were legitimate and it was believed that if investigated properly they would lead to changes that would improve the service. It was therefore decided in January of the present year to establish the complaint department with the hope that it would also bring the company and the public into closer touch. It was also planned to have the company assume the entire cost of investigation and to keep in mind at all times the definite object of not letting the public go to any expense in making or following complaints. The complaint department was placed in the charge of F. F. Janes, clerk to the vice-president, and he prepared the following preliminary outline of the plan that would be followed:

OUTLINE OF PLAN FOR DEPARTMENT

"Complaints will be received by telephone, personally or by letter at my office daily from 8 a. m. to 5 p. m., except Saturday afternoons, Sundays and holidays; after 5 p. m. daily, Saturday afternoons, Sundays and holidays complaints will be received over the telephone by the telephone operator on proper blank furnished and the operator will notify complainants that same will receive attention by the complaint department, but no decision is to be given by the telephone operator.

"As soon as complaints are received proper blank containing complaint will be sent to the head of the department against whose employee complaint has been made, requesting a thorough investigation and statements from employee or employees against whom complaint is made, and statement from any witness or witnesses that the employee may have. At the same time the complaint will be acknowledged to the complainant, the letter stating that a

NEW YORK STATE RAILWAYS.
ROCHESTER LINES

COMPLAINT DEPARTMENT.

RECEIVED { PERSONAL / TELEPHONE / LETTER } DATE RECEIVED _____ 1D__

COMPLAINT TAKEN BY _____ DATE OF COMPLAINT _____ 191__

AGAINST BADGE _____ CAR _____ LINE _____ TIME _____

WITNESS
NAME _____
ADDRESS _____

COMPLAINANT
NAME _____
ADDRESS _____

PHONE NO. { _____ HOME / _____ BELL

Rochester Complaints—Form Used for Record When Complaint Is Received

thorough investigation has been started and that upon completion of the same the complainant will be advised of our decision in the matter and the action taken, either by call by a representative of the complaint department or by letter. After the papers are returned with statements, etc., they will be gone over very carefully and a decision given as to the party at fault. If the complainant is at fault, this will be explained by a personal interview or by letter; if the employee is at fault, demerit marks, according to the merit and demerit system, will be recommended. After demerits have been given and entered on the record, the papers are to be returned to the complaint department to be marked complete and filed, and a record kept for future reference.

"If the head of the department does not agree with the

decision of the complaint department as to who was at fault, the papers in the complaint will be sent to the vice-president for final decision; his decision to be recorded on the papers and returned to the complaint department, which will consider the decision final and investigation closed.

"A monthly report will be prepared and sent to the vice-president giving a full account of the work done by the complaint department.

"To carry on the work satisfactorily it will be necessary to employ one woman stenographer, who will not only do work in this new department, but have other duties in the office of the vice-president.

"I recommend, on account of long conversations over telephone, that an extra Home telephone be placed in the office, to be known on switchboard as the complaint department telephone, also one Bell telephone, which can be an extension of the present Bell telephones in the building.

"I would recommend that cards be placed in the cars inviting the public to call the new department when they have any grievance against the company."

Mr. Janes has been made assistant claim adjuster of the company recently, but is also overseeing the work of the complaint department.

### RECORD OF COMPLAINTS

The plan outlined has been followed generally in the ensuing months. Two men, taken from the transportation department, act as assistants in the department.

The form shown in an accompanying illustration is used for a record of complaints when they are received. As indicated in the preliminary letter of Mr. Janes, when a person telephones that he wants to make a complaint the switchboard operator connects the wire with a telephone in the complaint department. The date on which the complaint is received is placed at the head of the form. The date on which the act complained of took place is added on another line. If the person complaining cannot furnish the badge number of the trainman concerning whom complaint is made, the car number is asked for, or, if that cannot be supplied, the line and approximate time are asked. Frequently it is possible to locate crews or cars if the line and approximate time are given. The complainant is then asked to give his name, address and also telephone number, if he is accessible by telephone. The name of a witness is also requested. If the complainant declines to give his name, the company will not investigate the complaint. It has taken the position that if a complaint is made seriously and is worth an investigation, the complainant ought to be willing to show his good faith by giving his name and address. That also enables the company to furnish a report to the complainant.

The statement regarding the complaint is sent by the complaint department to the superintendent of transportation, who sends the statement to the division superintendent affected. Statements are then secured from the trainmen concerned. These statements are sent by the superintendent of transportation to the head of the complaint department. The superintendent of transportation, in transmitting the papers, adds his interpretation of the results of the investigation.

When the complete papers are thus returned to the head of the complaint department, they are analyzed carefully. If all the necessary facts are furnished, a decision is made by the head of the complaint department as to whether the complainant, the company or the trainman was at fault. In case the record should show inconsistent statements further investigation is required. For instance, if the statement of the complainant is denied by the trainman, the complainant is asked if he is willing to meet the trainman in order to discuss the matter and see whether some mistake has been made. If this suggestion meets with approval a representative of the complaint department goes with the trainman to the office or home of the complainant.

### LOCATION OF RESPONSIBILITY

The head of the complaint department in reaching a decision as to who was at fault in a particular case considers whether the rules of the company were violated, and if so, whether the complainant or the trainman was at fault. If it is the judgment of the complaint department that an employee of the company was at fault, he writes to the head of the transportation department stating what the facts appear to show and recommending that the trainman at fault receive demerit marks. In his letter he states: "If this meets your approval, kindly let me know. If not, kindly let me know the reason."

When the superintendent of transportation disagrees with this recommendation he explains his reason therefor in his answer to the complaint department. The reason for disagreement may be a valid one, as, for instance, in case of a breach of minor importance where a new employee, who is giving satisfaction otherwise, overlooked a rule. If, however, the reason advanced is not satisfactory to the complaint department, the entire matter is referred to the

NEW YORK STATE RAILWAYS
ROCHESTER LINES

No. .....

COMPLAINT REPORT — TRANSPORTATION DEPT.

..... LINE — DATE ..... 191..

MADE BY ..... — RECEIVED BY .....

RESIDENCE ..... — TIME .....

COMPLAINT { TELEPHONE / LETTER / PERSONAL }

RESULT OF INVESTIGATION

PARTY AT FAULT .....

ACTION TAKEN .....

INVESTIGATED BY .....

REPLY MADE ..... 191..

SIGNED

**Rochester Complaints—Form for Complete Record of History of Complaint**

vice-president, who makes a final decision. When action has been taken on the decision a record of the case in brief is made on the form which is published herewith.

This form shows a record of the course of the complaint in both the complaint and transportation departments, the result of the investigation, the name of the party at fault, the action taken, the name of the person who made the investigation and the date on which the reply was made.

Whenever a complaint is made against a trainman, whether or not he was proved to be at fault, the circumstances are entered on the card record kept regarding each employee. An effort is made to investigate complaints as rapidly as possible and to make reports to the complainants without delay.

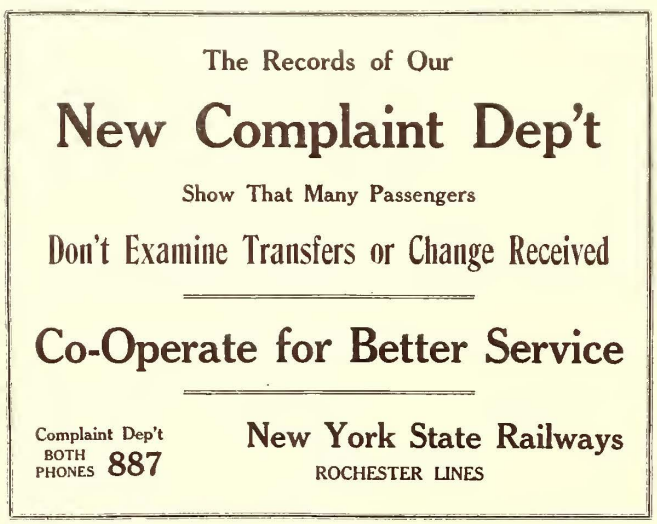
All papers in the case are taken by the representative of

the complaint department to the complainant in order that it may be apparent that an effort was made to bring out all the facts in the matter. While ordinarily the representative of the complaint department calls on men at their offices and women at their homes, sometimes men prefer to have the call made at their homes in the evening and this is done. If the inquiry showed that the complainant,


Rochester Complaints—Card Advertisement in Car

and not the company or its employees, was at fault, this is explained carefully to the complainant. The company enforces the rule that when transfers are used the passenger must be at the proper stop and, when complaints arise from this condition, the necessity for adherence to this rule in justice to the company is explained.

Other complaints are made at times that trainmen fail to stop the cars at other than the proper stopping places. When such complaints are made the company, through its representative in the complaint department, tries to show the complainant the necessity for adherence to rules. For instance, it is shown that if two or three times the stops required by regular stopping places should be made there would be delay of many cars and congestion that would not be overcome for a long time. A rule of the company provides that if a following car of the same line is within the same block no stop for passengers shall be made. The necessity for this rule in order that the proper headway may be maintained is explained to complainants in cases involving this point. It is kept in mind by the representatives of the department that one of the objects of their work is to try to educate people how to use transfers and the cars




Rochester Complaints—Sample Newspaper Advertisement

properly. If money is to be returned on account of wrong transfers issued, it is taken to the person who complained.

Sometimes it has happened that persons have complained against certain conductors and have stated after the investigation that they would try to avoid riding again on the car with the conductor who was said to have been at fault. In such cases the department has asked the complainants especially to ride with the same trainman again, notwithstanding the dispute, and to let the company know if they were not properly treated. As a precaution, however, they have been asked to give the proper signal well in advance. The trainmen, on the other hand, have sometimes been cautioned that they should not bear any grudge against the person who complained. Trainmen are not told the name of a complainant except in the unusual cases where a personal meeting is brought about in order to settle a question, but of course the fact that a complaint is made may enable them to remember the appearance of an individual.

It will be noted in the letter outlining the plan for the department that complaints received before or after office hours, on Saturday afternoons, Sundays and holidays are taken directly by the switchboard operator at the general office. This operator has proper blanks and, if time permits, he writes all the necessary details. If he is so busy as to be unable to do this, he asks the complainant to give him the principal fact and says that a representative of the company will call at his office during the day to secure full details.

### NEW DEPARTMENT ADVERTISED

At the time the department was started a card was placed in all the cars of the company asking for complaints. Similar advertisements were placed in the newspapers. Samples of the card and the advertisements are published herewith. The daily newspapers were much interested in the establishment of the department and published articles regarding this departure.

One effect of the inauguration of this policy has been that conductors frequently secure names of witnesses in cases of disagreement. These names are secured on the regular form of blanks used for the names of witnesses of accidents. It has been found in various cases that witnesses have supported the statement of the conductor rather than that of the passenger. If the conductor was responsible for the beginning of the trouble, he of course finds it difficult to secure names of witnesses. On the other hand, if the passenger started the difficulty, the conductor, not being at fault, is frequently able to get a number of names.

No particular instruction regarding the new department has been given to old employees. New trainmen are directed particularly regarding the work of the department, and are told to be careful about their manner in dealing


Rochester Complaints—Sample Newspaper Advertisement

with the public and to give advice freely as to location, changing of cars, etc. This work is conducted by the chief inspector, who gives verbal instructions on the subject.

A complaint which may be used for purposes of illustration was that the motorman failed to stop for a passenger who was waiting at the corner. This complaint said in part: "Some time ago you were asking the traveling public to send in any complaints they had to make instead of

standing on the outside and growling. Well, it takes valuable time to enter a complaint even when you do so by letter, but here is something that should be looked into. Don't you see that in doing this way the motormen are educating people to jump on the cars when they are in motion? It is a temptation to try to get on."

This complaint was acknowledged, with the statement that the matter would receive a thorough investigation and that the writer would be advised of the result when the investigation was completed. The complaint was then sent to the superintendent of transportation and referred by him to the superintendent of the division concerned. A statement was secured from the conductor, who did not remember seeing a passenger or that the car slowed down as stated in the complaint. The motorman said in his statement that he did not make a practice of running by passengers, but that if persons stood on the curve he reduced the speed of the car so as to be prepared to stop if they signaled. If no signal was given, he took it for granted that the person was waiting for a car of another line using the same street.

In sending the statement of the trainmen to the complaint department the superintendent of transportation said in this case that he thought there was some doubt as to whether the complainant gave the signal to the motorman. In his letter directing one of his assistants to call on the complainant the head of the complaint department said that it should be explained that unless the passengers were at the proper stop and signaled the motorman the latter was apt to think that another car was wanted. If, however, the complainant said that the motorman's statement was not true, the investigator was directed to find out if the complainant would be willing to meet the employee. The report of the investigator showed that the complainant said the reports of the trainmen were practically true, but that he stood ready to take the car although he did not make any direct motion to the motorman.

### RESULTS OF THE POLICY

Since the department was established 859 complaints have been received and action taken thereon. Not over a dozen people have made a second complaint. An analysis of the complaints has been made and the accompanying table shows the result. The total number received in each month from February to July, inclusive, is given in the first column. In the second column the number not investigated refers to those complaints in which no name was given and which the company therefore did not think worthy of investigation. The column headed "Claim Department" relates to cases which were referred to that department. The column headed "Against Complainant" refers to cases in which the complainant violated the rule of the company and was at fault. The column "Against Company or Employees" refers to cases in which either the company, because of some condition that caused the complaint, or the employee was directly responsible.

CLASSIFICATION OF COMPLAINTS.

| | Total. | Not Investigated. | Claim Department. | Against Complainant. | Against Company or Employees. |
|---|---|---|---|---|---|
| February | 112 | 5 | 3 | 59 | 40 |
| March | 91 | 7 | 1 | 48 | 35 |
| April | 60 | 1 | 1 | 33 | 25 |
| May | 80 | 2 | 0 | 42 | 36 |
| June | 67 | 0 | 2 | 37 | 28 |
| July | 93 | 0 | 4 | 54 | 35 |

It is the general conclusion of the management that the result of the establishment of the complaint department will be to increase the number of complaints of conditions about which the company should be informed, and that by the painstaking method of personal investigation and sending an employee directly to the complainant a familiarity with rules on the part of the public will develop which will decrease the number of unnecessary complaints. Such results are directly desirable to the company and to the public.

## STATUS OF NEAR-SIDE CARS IN PHILADELPHIA

A letter written on Dec. 12 to Charles O. Kruger, president of the Philadelphia Rapid Transit Company, by the secretary of the Pennsylvania State Railroad Commission, contained some interesting comments on the commission's attitude toward the rolling stock question in Philadelphia with particular reference to the near-side cars. The commission inspected these cars on Nov. 28, but in order that its favorable personal views should not be confused with its official attitude, it stated in this letter that the cars would be satisfactory to the commission only if the company could prove that the cars met the approbation of the patrons of the lines. Furthermore, the commission wished to be advised whether or not the near-side cars ordered were to be in addition to the equipment already in service or whether they would simply supplant old cars. In the former case there would be a distinct addition which would more than meet the requirements set forth in the report of Ford, Bacon & Davis; in the latter case there would not be such an addition. The commission thought that the Philadelphia Rapid Transit Company would not be complying with that recommendation unless the new cars were to be used in addition to the old, until such time, at least, as all of the old cars could be replaced.

On Dec. 21 T. E. Mitten, chairman of the executive committee, Philadelphia Rapid Transit Company, made the following reply to these questions:

### LETTER OF T. E. MITTEN

"Acknowledging receipt of your favor of the 12th instant, we respectfully disclaim any intention of assuming a formal approval by your commission of the "near-side" car in advance of its having proved satisfactory to the Philadelphia public.

"We fully appreciated the general expressions of approval made by the members of your commission at the time of your inspection of the car in service, Nov. 28, and in view of the public commendation which had already been received and the pressing need of additional cars, we took immediate steps preparatory to the ordering of 500 additional cars, making public report of that fact to your commission.

"This management is fully as anxious as is your commission to adopt as standard a type of car which as nearly as possible meets with universal approbation. It, therefore, asked the riders on the "near-side" cars to vote for or against this type of car, using the following form:

### "'VOTE FOR OR AGAINST 'NEAR-SIDE' CAR

"'The Pennsylvania State Railroad Commission has signified that before giving formal approval of the 'near-side' car it would like to be assured that the 'near-side' type of car upon which you are now riding meets with the approval of the Philadelphia public.

"'The company being equally desirous of assuring itself that the 'near-side' car is acceptable before purchasing the large number for which bids are now being secured, requests that passengers riding upon the 'near-side' cars during Tuesday, Dec. 19, 1911, will signify their preference either for or against the 'near-side' car by signing their names in the column "For" or "Against."'

"The result of this vote was that 30,221 persons voted 'For' and 567 voted 'Against.'

"The interest shown by our passengers was remarkable, as evidenced by the fact that in nearly every instance the voters have, in addition to signing their names, given their full address, and while it is our intention to keep the sheets containing these signatures as a permanent record, we shall nevertheless be glad to submit them for your inspection at any time. In conclusion we desire to state that it is not the intention of the Stotesbury management to withdraw any of the present cars from service until a sufficient number of new and additional cars are provided to care properly for the traffic."

# Meeting of the Central Electric Railway Accountants' Association

At the Annual Meeting, Held at Toledo, the Plan for Affiliation with the Central Electric Railway Association Was Adopted—Election of Officers and Other Features of the Proceedings

The annual and nineteenth regular meeting of the Central Electric Railway Accountants' Association was held at the Boody House, Toledo, Ohio, on Dec. 16, 1911. More than thirty accountants, representing member companies of the Central Electric Railway Association, were present. In view of the fact that the Railway Association voted to admit the Accountants' Association as an auxiliary to the parent body upon a basis which would permit all present members of the Accountants' Association to affiliate with the parent association, much interest was manifested in the meeting.

The meeting of the executive committee was held on Dec. 15 in the Boody House. The report of the committee, which was read at the session of the association on the following day, recommended favorable action upon fifteen new applications for membership previously reported to the committee by the membership committee. The committee also recommended favorable action upon the resolutions for affiliation with the Central Electric Railway Association.

After the minutes of the previous meeting were read on Dec. 16 it was moved by F. K. Young, Scioto Valley Traction Company, that the resolutions accepted by the Central Electric Railway Association be ratified. The motion was carried unanimously.

The annual address of the president, A. F. Elkins, Columbus, Delaware & Marion Railway, was then presented. Mr. Elkins said in part:

ADDRESS OF PRESIDENT ELKINS

"One of the objects of our conference is the interchange of ideas. I wish we might amend this to read 'the interchange of ideas and ideals.' This conference has stood firmly since its organization upon the principles of right and a square deal for all. Our personal associations have been such that we do not hesitate to call upon another member of the craft for anything which he might have. That good old maxim, 'A chain is just as strong as its weakest link,' applies to us especially well. We must stand together, each doing his part in the upbuilding of the conference, to the end that we may keep abreast of the rapid advance in electric railway accounting.

"It is simply marvelous to contemplate the advance in electric railways during the last decade. The old bookkeeper of yesterday has awakened suddenly to find himself an integral part of the organization. In the new order of things we are expected to keep in close touch with the auditor's part in this advancing field of endeavor.

"The question of affiliation with the Central Electric Railway Association has been one of the most important matters before us in a long time. I am glad to know that this question has finally been adjusted to the satisfaction of all concerned. I consider this as a real beginning of our great work in the accounting field, now that we are a part of the association which represents in this territory what the national association represents in the United States.

"The Central Electric Railway Association at its meeting in Louisville, Ky., on Nov. 23 voted unanimously to accept our resolutions for affiliation and these resolutions are ratified by you to-day.

"Another step in the right direction has been the appointment of two standing committees, one on passenger accounts and one on freight accounts.

"In order that we may have something tangible as a result of our labors I recommend the appointment of a compiling committee whose duty it will be to assemble all of the forms and recommendations which have been acted upon heretofore, together with other data bearing upon subjects of vital importance, and then to issue a pamphlet containing a synopsis covering the entire work of the conference to date. I believe such a work would prove of inestimable value to our members. Heretofore the questions concerning interline passenger and freight accounts have been frequent. Mr. Neereamer advised me recently that almost every week he received letters of inquiry from member lines covering these various questions."

The annual report of the secretary-treasurer was then presented. The funds on hand will be turned over to the new treasurer under the plan for affiliation.

Mr. Hawley, of the committee on resolutions, presented resolutions regarding the death of A. J. Lamb, chief clerk of the Toledo Railways & Light Company.

E. B. Peck, president of the Central Electric Railway Association and vice-president of the Terre Haute, Indianapolis & Eastern Traction Company, was next introduced by Chairman Elkins. Mr. Peck read a paper on "Department Co-operation." An abstract follows:

MR. PECK'S PAPER ON "DEPARTMENTAL CO-OPERATION"

"Before proceeding with the subject of my paper I wish to call your attention to the fact that the first railroad built west of New York, called the Erie & Kalamazoo Railway, was constructed between Toledo and Adrian, Mich., a distance of 33 miles. At that time the city of Toledo was called Port Lawrence. This was in 1836 and the types of construction and motive power were somewhat different from those in use to-day.

"The first rails were strips of wood which were covered later with iron straps. The first motive power was horses driven tandem, and the time required was from sun to sun to make the trip of 33 miles. This motive power, however, was superseded in 1837 by the Stephenson type of locomotive, drawing a single carriage seating eighteen people. The railway was built by departmental co-operation, its capitalization being $1,000,000, and such records as have been discovered do not disclose any criticism for watered stock, nor do they give the actual cost of construction; neither has there ever been, so far as is known, a report as to the physical valuation. The road paid from 20 per cent to 30 per cent dividends the first year, which was gradually reduced until 1840, when it passed into a receivership, and later was leased to the Michigan Southern Railway Company. A comparison of the type of construction and the equipment of this road with the electric road of to-day need not be made by me to you who are engaged in the most modern method of transportation.

"The success of this road in its beginning, as well as its ultimate success as a part of the great New York Central system of to-day, was due to the co-operation of the officials. This is true of any great organization such as has been required for the development of the steam railroads and electric transportation companies of to-day, for 'A house divided against itself cannot stand.'

"It is necessary and is one of the laws of business that every corporation must have a single head, usually the president, to whom the heads of all departments are subordinate, and through these heads of departments the different branches of the business report to the president. The presidents and managers recognize this, and for that reason the systems which we have adopted have been installed.

"The accounting department is one of the most important of the departments of any great corporation, for by it the operating officials are kept in close touch with the business and the net results to the company from operation. Through the operating official these results are obtained by the president at such periods and in such forms as he may desire. True harmony and co-operation must prevail between the different departments to obtain the best results.

"This harmony and departmental co-operation are exemplified in all of the mechanical branches of our business. The many different parts of the equipment of the cars must be perfectly adjusted, so carefully and accurately constructed as to be interwoven with each other, and each part must do its full duty harmoniously with every other part of the mechanism. The trolley wheel and the trolley pole must be adjusted so carefully that the transmission of the power from the trolley wire to the motors attains its fullest efficiency. The motors must be so installed upon the trucks, the gears so carefully adjusted that the propulsion of the car reaches its highest efficiency. If the adjustment of any one of these parts becomes disarranged it disrupts the whole organization of the car. This comparison could be drawn as to every other part of the car, as to every part of the power station, and it extends throughout all mechanical branches of the business. The adjustment, harmony and co-operation in the many elements of the operating, financial and complete management of the corporation are just as necessary for its success as those within the mechanical departments.

"About sixty-five years ago the steam railways of our country began their first operation. The first methods of accounting were, in the light of the present day, extremely crude and were of such a nature that the managing official was unable to determine in what particular branch of his business he might be able to reduce his expenses, or in what particular branch of revenue he might be able to increase his earnings. This brought about accounting in more detailed form, the evolution of which has reached our present stage. The operating official of to-day may, upon examination of his daily or monthly statements, place his finger upon any weak spot in his operating expenses, and he is thus enabled to manage the property better and reach the results most satisfactory to his stockholders. This evolution of accounting by the steam railroads was brought about very largely through their own efforts—I might say entirely, as but few changes in classifications have been required by the Interstate Commerce Commission, since organized.

"At first it was assumed that the classifications adopted by the steam roads and the Interstate Commerce Commission could and should be applied to the electric railways, and great credit is due to the associations of accountants whose representatives were selected to present to the commission the classifications which were finally adopted and which upon careful and detailed explanation the commission very readily acknowledged as most desirable for it as well as for the electric railways. The classifications have been adopted almost universally by the various state railroad commissions, and as a consequence our system of accounting is now placed upon a universal standard. This standard system of accounting has been evolved from the organization of such associations as yours, as well as of the great corporations which have built and are now operating the electric railways of this country.

"This departmental co-operation extends through your association, and you well know and appreciate its necessity. The broad field of this association has, to my mind, been widely extended within the past year, and I am very sure that the benefits to be derived by your association, as well as the Central Electric Railway Association and its departments, will be realized fully as this co-operation is extended within the coming years, and more particularly in the ensuing year.

"I wish at this time to express to the members of your association and your officers my thanks for the hearty co-operation they have given in establishing this relation, and I would suggest that, inasmuch as the relations between the Central Electric Traffic Association and the Accountants' Association are so close, one or more members of your association should be selected to attend the meetings of the Traffic Association, as many questions come up at these meetings that relate to the accounting department.

"The rapid and extensive development of the electric railways, particularly in the territory embraced by your association, which has involved 'interline business,' has brought the accountants of these various companies into closer touch with each other. The many actions taken by your association have contributed very largely to the development of this interline business, and in many instances problems that have presented themselves have appeared like mountains until, having been tried out, they were found to be merely molehills. I do not mean to discount in any way the intricate and vexing problems which have come before you, but the results which have been achieved are evidences of the ability which you have displayed.

"Differences of opinion as to the best methods to be pursued have arisen and will always confront you, but this would be a strange world indeed if every one thought alike, and it would appear that when a majority of your association, after careful and serious consideration, have approved a certain method or change in methods the consensus of opinion should be conclusive. There can be no doubt that the older your association grows and the more of these questions are taken up and decided you will find your efforts to obtain uniform systems in all branches of the accounting department will meet with more satisfactory results than they have in the past, and that the member whose opinions may differ from yours will become more easily reconciled to the judgment of a majority of your members.

"We believe that your association will from this time on take an active part in the affairs of the Central Electric Railway Association, its committees and the work in which we are all interested, and thus departmental co-operation will be carried out more fully and completely."

The next order of business was the report of the standing committee on freight accounting. This was read by E. L. Kasemeier, chairman of the committee. No new changes were made in the various interline freight forms, and the report was accepted. An abstract of this report was published in the issue of the ELECTRIC RAILWAY JOURNAL for Sept. 30, 1911.

The full report of the standing committee on passenger accounts was presented. This committee is composed of the following: C. M. Witt, chairman; F. T. Loftus, E. O. Reed, C. B. Kleinhans and E. J. Skehan. An abstract of the report follows:

REPORT OF COMMITTEE ON PASSENGER ACCOUNTS

"Your committee was appointed on Nov. 10, 1911, and the chairman called a meeting, which was held at Ft. Wayne, Ind., on Nov. 25.

"At this meeting we discussed the mode of settlement in effect at the present time, and from this discussion your committee outlined a policy of interline passenger accounts which is submitted herewith with a recommendation for adoption.

"FORM C. E. A. C. 1—STATEMENT OF INTERLINE TICKET SALES

"This form is practically what all roads are using at the present time. The line numbers should be used, as they act as a key to the report, should any correspondence be necessary. This report should be made by the selling road and forwarded on or before the fifteenth of the following month.

"FORM C. E. A. C. 2—INTERLINE TICKET OR BAGGAGE CORRECTION

"The interline correction blank has been so arranged that it can be used in correcting either ticket or baggage

reports. This report should be made prior to the close of the month following that on which the correction is made in order that the difference can be taken into account.

"FORM C. E. A. C. 3—STATEMENT OF INTERCHANGEABLE MILEAGE. C. E. T. A.

"This form covers mileage coupons lifted of another company's issue. It eliminates the invoice that we are now using and condenses the two forms into a good record. It should be rendered by the fifth of each month.

"FORM C. E. A. C. 4—STATEMENT OF INTERLINE REVENUE BAGGAGE CHECKS

"This form covers revenue baggage checks that have been issued over a foreign line and a report should be made by the forwarding line and rendered by the fifteenth of the following month for which it covers.

"FORM C. E. A. C. 5—STATEMENT OF ACCOUNTS

"This report is an acknowledgment of reports that have been made by both companies and should be issued by the company in whose favor the balance is due. This report will eliminate the issuance of other forms of acknowledgments and the stamp we are now using on ticket reports. Attention has been called to the fact that reports are not received from some companies in time to use the stamp. This also carries with it the idea of settling by balances, which seems to be the most satisfactory way of settling. This can be done by either check or draft, whichever suits the companies interested.

"We have outlined our forms to be as nearly uniform in size as possible, so that they may be filed in a systematic manner.

"We suggest that all forms be 8½ in. by 13 in., except form C. E. A. C. 5, which should be 5½ by 8½ in.

"PREPAID TICKET ORDERS

"As the volume of this class of traffic is very small and the majority of agents employed by traction lines do not have enough of this class of work to enable them to handle it intelligently, we would recommend that for the present all such orders be handled between interested lines by letter."

Mr. Peck stated that it was evident from the manner in which the Accountants' Association was going into the question of interline accounts that much good would result. A uniform system of interline accounting was a necessary step in the advance of electric railways.

A. L. Neereamer, chairman of the Central Electric Traffic Association, suggested the advisability of having the Accountants' Association represented at the monthly meetings of the Traffic Association, as many questions of common interest came up for discussion. W. H. Forse, Jr., said that this would bring about a better understanding between the two associations, and moved the appointment of a committee of three, to be known as the standing conference committee. This committee would be empowered to name one or more members of the committee or association to attend each meeting of the Traffic Association. The motion being carried, the president appointed E. L. Kasemeier, J. B. Hooper and C. M. Witt.

Upon motion of H. B. Cavanaugh, the standing committees on passenger and freight accounting were instructed to continue their work covering local forms and accounts, and to report at the next regular meeting.

All of the various forms covering interline passenger and freight accounting were taken up in detail, and after considerable discussion were adopted as official forms of the association.

It was moved by Mr. Forse that the incoming president appoint a committee of five members, to be known as the compiling committee, for the purpose of assembling all of the forms and recommendations of the association, from the first to the nineteenth meetings inclusive, and to include these forms together with other data in a synopsis for distribution to the members. Authorization for the necessary expenditure was given to the committee.

A. L. Neereamer, chairman of the Traffic Association, was next introduced by the president. Mr. Neereamer read a paper on the "Relations Between the Traffic and Accounting Departments." An abstract of this paper follows:

MR. NEEREAMER'S PAPER ON "RELATIONS BETWEEN TRAFFIC AND ACCOUNTING DEPARTMENTS"

"In the edition of the Street Railway Journal of July 2, 1904, W. B. Brockway presents an article the caption of which is 'The Accounting Department Is Not a Revenue-Producing Department.' I quote the following from his article:

"'At the beginning of the steam railroad it is easy to believe, judging by the experience of the electric railways in their infancy, that in the small way in which they had their rise, various duties which are now carried on by different departments could be and were performed by one person, the general manager, no doubt, being held responsible for the active and detail work of the office as well as the operation of the road. In time the freight and passenger departments were added, or, rather, their work was taken from the active duties of the manager, and the accounting department also received an official head and became a definite department. These results are most natural, because there is a limit to the amount of detail work a man can do, and as the size of the roads increased it had to follow that the work should be specialized. It is very common to-day for the executive officer to understand the detail of all departments, but he certainly cannot have the time or the strength to be in contact with all of the details. His duties are large and he deals with principles and results.

"'As the steam roads grew the natural result was competition, which meant that greater efforts had to be put forth to obtain what was considered by each road to be its full share, or more, of the business tributary to it.

"'In the course of events, with competition becoming stronger yearly, there came the time of reconstruction. Many of the roads were not provided for this additional strain. Whether their unprepared condition was caused by lax accounting methods or by high operating cost would make a very interesting study. Be the cause what it may, the roads had to meet the problem, in part, by rigid economy. The line of reasoning followed at that time gave the basis that whatever department produced revenue should not be restricted in its efforts, for upon those efforts everything was supposed to depend. However, as the accounting department did not only not produce revenue, but seemed to be expense only, it at that time and since has felt the effects first of reducing expenses.'

"After making the above statement Mr. Brockway comments upon the work in general and the evolution of the ordinary bookkeeping department into the present accounting department, and then makes the following statement:

"'In view of the analysis that is possible when statements are intelligently prepared, there is much evidence that electric, if not steam, railway interests are recognizing the truth of the substitute axiom, "The accounting department is a revenue saving department," which is more fair to the department and not easily misunderstood.'

SAVING AND EARNING

"I disagree with Mr. Brockway. There is an old saying that is very true, that 'a penny saved is a penny earned.' Now, if the accounting department can through its efforts save any money for its company or point out to its managing officers a mode of saving money or a leak that should be stopped and the stopping of which would save a loss of revenue, then, under the old saying that 'a penny saved is a penny earned,' the accounting department becomes an earning department. For it is true that if this department shows to a managing officer an opportunity to save in the operation of the road, then the cost of the operation is reduced that much and the reduction so made becomes a net earning.

"There are no departments in interurban operation that should work closer together than the accounting and traffic departments. The traffic department originates the business; the accounting department checks the result, and to do this intelligently a close relation with the business-securing department should exist.

"It is well said that friendship and business do not go together. Therefore, the accounting department in some companies has been considered unfriendly by other departments, because of its strict adherence to business. The auditor, to carry out his work properly, should have been reared in the Ozarks and should carry out the childhood teaching of that locality—that he must be shown in order to believe. It is here that conflict between his department and other departments sometimes arises, especially if the other department is sensitive. Having had experience in both the traffic and accounting departments, I am well aware of the opportunities that arise for a conflict of opinion, and the solution of the problem, I think, is when you open your office door to forget everything but business, and when you close your office door in the evening to forget all unpleasant things that have arisen in your business, because in any business unpleasant things arise daily.

"The work of an energetic traffic man has to a great extent been responsible for the accounting department, or a great deal of the work of the accounting department. Where friction exists the work of the traffic department is greatly handicapped by the accounting department, and vice versa, and where unity exists each department is backing the other up. There may be union without unity, but there cannot be unity without union. The merger of the Central Electric Accounting Conference, as an auxiliary of the Central Electric Railway Association, is a step toward unity. I expect in the future to see the Accounting Conference and the Traffic Association working as harmoniously together as though they were one single body, for with these two departments attuned to each other and working in perfect harmony the success of the properties that each member represents is assured."

ELECTION OF OFFICERS

The following officers were elected for the ensuing year: President, Walter Shroyer, auditor Indiana Union Traction Company; first vice-president, F. K. Young, auditor Scioto Valley Traction Company; second vice-president, H. B. Cavanaugh, auditor Cleveland, Southwestern & Columbus Railway; secretary, C. M. Witt, auditor Indianapolis, Newcastle & Toledo Traction Company; executive committee, the officers and A. F. Elkins, auditor Columbus, Delaware & Marion Railway; L. T. Hixson, auditor Terre Haute, Indianapolis & Eastern Traction Company; E. L. Kasemeier, auditor Ohio Electric Railway; E. O. Reed, auditor Western Ohio Railway.

The constitution and by-laws, as revised, were read by W. H. Forse, Jr. Among the changes made is that in the time of meeting, which is changed from quarterly to semi-annual.

The name of the association is to be the Central Electric Railway Accountants' Association.

The object "shall be to bring together those engaged in the accounting departments of electric railway companies and the electrified sections of steam railways for the interchange of ideas, to promote the adoption of uniform systems of accounting and to encourage closer and more intimate personal relations."

The membership of the association shall consist of (a) the authorized representatives of the accounting department of railway company members of the Central Electric Railway Association, and (b) the authorized representatives of the accounting department of the following companies: Chicago & Milwaukee Electric Railroad, Cleveland Railway, Illinois Traction System, Scioto Valley Traction Company and Toledo Railways & Light Company.

The annual dues shall be $5, payable in advance for companies not members of the Central Electric Railway Association. Dues paid by railway company members of the Central Electric Railway Association to that association include the privileges of the Accountants' Association for the authorized representatives of the accounting department. All expenses of the association in excess of $5 per member are to be prorated to roads on the basis of all members.

The association then adjourned, to meet in June at the call of the executive committee.

## TRANSPORTATION OF MAIL CARRIERS ABANDONED AT LITTLE ROCK

Under a decision of the Supreme Court of Arkansas, rendered Dec. 10, the Little Rock Railway & Electric Company is no longer obliged to transport mail carriers free. The custom began in 1901 when the company made a contract with the city which provided, among other things, that the railway company would carry free of charge United States mail carriers in uniform. The company complied with the agreement of this contract up to Dec. 12, 1910. It then received permission from the city to discontinue this service. The company declared at that time that the privilege was being abused and that the carriers disregarded the rules of the company while on the cars.

When the Common Council repealed the ordinance, the mail carriers, through the postmaster of Little Rock, filed a suit in Chancery Court asking for an injunction to restrain the company from collecting fares. This injunction was granted temporarily, but the carriers were required to furnish a bond of $1500 to idemnify the company in case the injunction was dissolved. On Jan. 15, 1911, the injunction was made permanent by the Chancellor, but an appeal was taken by the company to the Supreme Court, which required the carriers to file an additional bond of $1,000, making a total bond of $2,500, pending the decision of the court on the merits of the case.

The decision of the Supreme Court, which was rendered Dec. 12, 1911, sustains the company. As the latter issued books of tickets to the mail carriers so that an accounting of fares might be made if the suit was ultimately decided against the carriers, the company can now collect this amount from the bonds which have been filed.

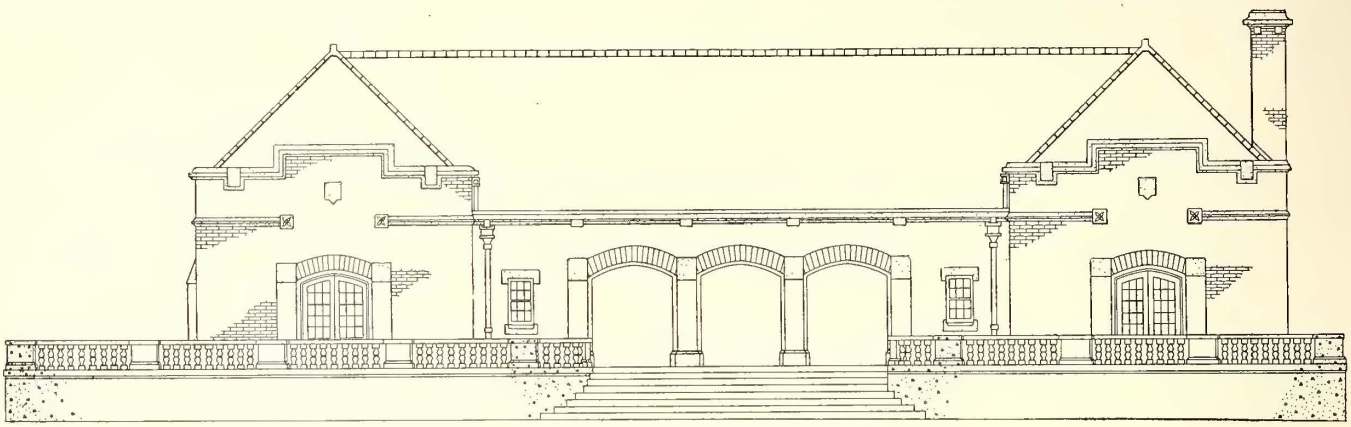
The mail carriers argued that the original provision in the ordinance which gave free transportation to them was conducive to better mail service in the city and for this reason was a valuable consideration which induced the City Council to grant the original franchise and the citizens of the city to approve this act. The court, however, took the ground that the only parties to the contract were the railway company and the city authorities, and that the provision was "merely a transaction which could be recalled at any time, and the continuance of which they cannot demand. * * * It did not constitute a contract between the railway company and the mail carriers, for they were not parties to the contract and the provision was for the benefit of the public and not for the individuals."

It was claimed by the railway company that Little Rock and Oklahoma were the only cities in the United States where free transportation was provided for mail carriers.

The building of two electric street railways in Pisa, Italy, was commenced in March, 1911, and cars are expected to be in operation by Jan. 1, 1912. Two distinct branches are being constructed, both starting at the local railway station, one going to Porta Nuova and the other to Porta a Piaggie. The total trackage is 3⅔ miles. The fare is to be less than 2 cents per person. The lines are being built and will be operated by the Società Anonima Elettrica Toscana.

## NEW STATION FOR THE AURORA, ELGIN & CHICAGO RAILROAD AT WHEATON, ILL.

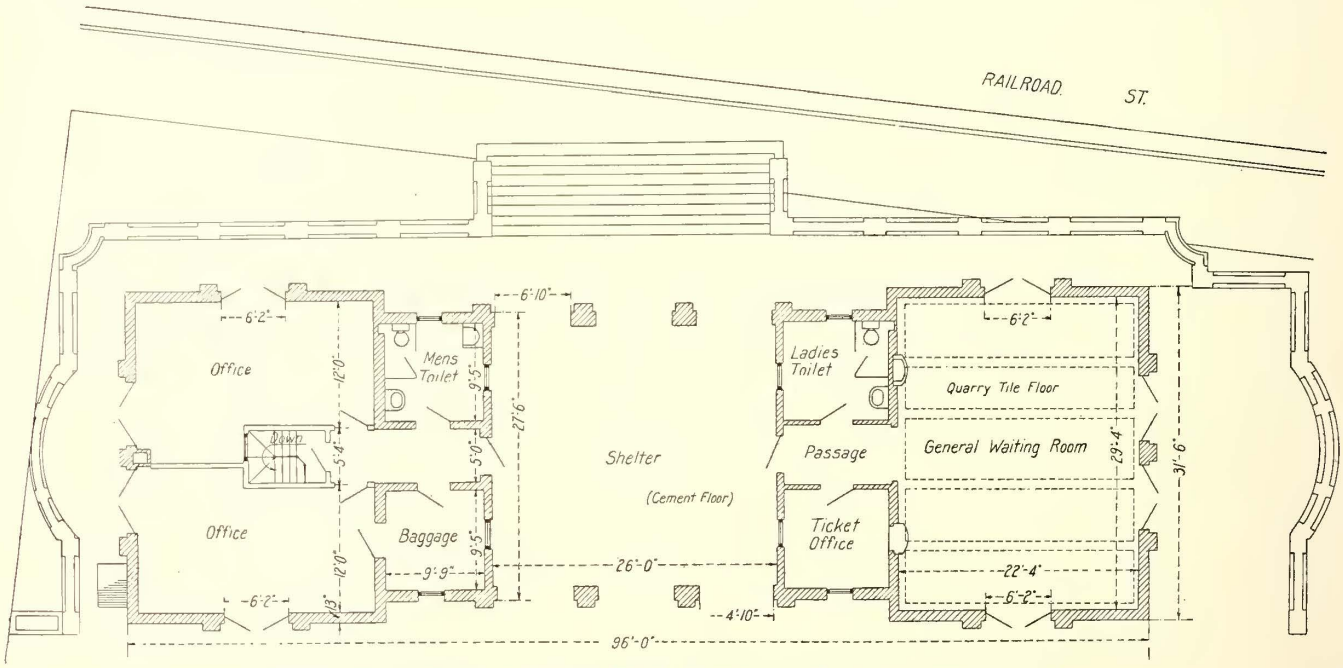
Contracts have just been let and construction started on a passenger station for the Aurora, Elgin & Chicago Railroad, at the northwest corner of Main and Railroad Streets, Wheaton, Ill. The building conforms in a general way to the character of other stations along this company's line, which have been designed with a view to making them attractive architecturally and providing necessary facilities for passengers. Attention has been given to making the building fireproof, thus reducing station-building maintenance and insurance rates. Future requirements have been carefully considered, so that there will be no immediate necessity for enlarging the building to take care of increased traffic. The details of construction are shown by the accompanying drawings.



Railroad Street Elevation of Aurora, Elgin & Chicago Station at Wheaton, Ill.

with the track. An open arched shelter occupies the central portion of the building. This shelter will be a part of the general waiting-room space. The general waiting room, the ticket office and ladies' toilet occupy the west end of the station building. The east section of the station is made up of two spacious, well-lighted office rooms, a baggage room and the men's toilet. The basement, which will be under the entire building, will be used for the heating plant and storage purposes.

The architectural design of the building is enhanced by the careful selection of building materials. The face bricks are mottled dark buff of the homespun or tapestry type. They show a rough, wire-cut face and are laid in blue-gray mortar. The stone moldings, sills, lintels and copings are of rubbed-finish, buff Bedford limestone, and the caps over the brick columns are of the same material, but have a tooled finish. The gabled roof is covered with green glazed tile shingles, with plain ridge-roll and terminals.




Ground Floor Plan of Aurora, Elgin & Chicago Station at Wheaton, Ill.

The new Wheaton station is a handsome building of the modified Elizabethan type and is particularly well located, as it is on corner property and the ground floor is about 5 ft. above the street level. A concrete terrace inclosed in a cast-concrete balustrade of artistic design surrounds the station on three sides. Wide concrete steps of easy ascent lead from Railroad Street to the main entrance. On the track side a concrete platform extends from the north wall to within 2 ft. of the nearest track rail. The building is 31 ft. 6 in. x 96 ft. in plan, and its longest side is parallel

All the metal work, window and door frames will be painted a dark olive green and the sashes and doors will be painted cream white. The entire building will be finished inside with plain oak, stained medium dark English, and the walls and ceiling, which are a rough-cast plaster, will be tinted a light brown.

The floors in the arched shelter and baggage room are cement with sidewalk finish; those in the ticket office, two toilets and passageways are mosaic tile of handsome design, and in the general waiting room the floor is covered with

quarry tile of a dark cherry-red color laid in black cement mortar. The office floors are of hard maple. The hardware, including the light fixtures, will be bronze finish, and the ornamental iron grills and radiators will be glazed out in Verde antique bronze.

The electric lighting system has been carefully designed to furnish an equal diffusion of light throughout the building. The lamps in the shelter, ticket office and waiting rooms will be controlled from a central switch placed in a cabinet in the ticket office, and those in the two offices will be controlled by local switches. The entire lighting system will be controlled through a master switch and panelboard located in the basement. The wiring will conform to the city of Chicago electric department specifications.

The heating system is of the low-pressure, direct-radiation type with a sectional boiler located in the basement. All piping below the ground-floor level is to be covered with 1-in. molded asbestos insulation canvas-bound. The heating-plant guarantee calls for a temperature throughout the rooms to be heated to 75 deg. when the outside temperature is 10 deg. below zero.

This station was designed by H. R. Wilson & Company, Chicago, Ill., under the supervision of Edwin C. Faber, general manager Aurora, Elgin & Chicago Railroad.

## PLAN FOR MODEL FRANCHISE PRESENTED TO MUNICIPAL LEAGUE

A report containing "Suggestions for a Model Street Railway Franchise," prepared by a sub-committee of the committee on franchises of the National Municipal League, was presented at a conference held at Richmond, Va., on Nov. 16. The report was prepared by James W. S. Peters, president of the City Club of Kansas City, Mo., and Delos F. Wilcox, chief of the bureau of franchises of the New York Public Service Commission, First District. It says in part:

"Given a properly constituted state or local commission, with sufficient authority to regulate a street railway company's stock and bond issues and to compel it to render safe and adequate service at reasonable rates, to extend its lines so as to keep pace with the needs of the community, to readjust its routes as public exigencies require, to keep accounts and make financial reports with scientific honesty, and to refrain from expending moneys and conferring favors for political purposes, and with ample funds to employ and train experts for this supervisory service, a local franchise may be reduced practically to a simple permit to occupy the streets, subject to the right of the city to terminate the grant and upon equitable terms take over the property or transfer it to another grantee whenever public policy shall so dictate. This may be called the minimum requirement for a model franchise. The maximum is quite different, including as it does all of the points which must be covered by a complex contract between the city and its grantee where the relation between the parties is purely contractual, no continuing right of regulation being vested in the public authorities or no machinery for the exercise of such right being available.

"While we do not favor the granting of a street railway franchise that is exclusive in legal form, we do believe it to be for the best interest of all concerned that the entire street railway system of a given community should be operated as a unit under one comprehensive franchise. In other words, we favor a practical though not a strictly contractual monopoly.

"We would even go so far as to suggest the advisability, under certain conditions, of a practical consolidation of the street railway and the electric light, heat and power systems, because of the economies to be effected by joint management.

"It is our opinion that one of the necessary corollaries of monopoly in street railway service is the obligation on the part of the franchise holder to extend its lines from time to time when required by the city, subject to review as to the reasonableness of the requirement. It should not be necessary to show that a particular proposed extension will be an immediate source of profit.

"We are of the opinion that all franchises should be indeterminate within the maximum limits permitted by law, and that when the indeterminate principle is accepted as the policy of the state such maximum limitations should be eliminated by a change in the law, revocation in any case to be conditional upon the city's taking over the physical plant at a fair price or designating another grantee to do so.

"An essential element in the purchase clause is the fixing of the price at which the property may be taken over, or the exact description of the method by which such price is to be determined in the future.

"The fixing of the purchase price and capital value in the contract itself releases the city from any necessity of providing for the supervision of stock issues. As to bonds, it is desirable to provide in the franchise that they shall be sold at the fair market price and shall be callable for amortization purposes at a small premium over the price at which they are sold.

"We believe that, in order to make the city's control of its streets effective, a practicable method of substituting municipal for private ownership should be available to the city at all times.

"We therefore suggest that either the city should set aside all or a sufficient portion of the revenues received by it from the street railway company as an amortization or sinking fund for the purchase of the company's bonds from time to time, and ultimately to offset the company's entire equity in the property, or that the company itself be required as one of the conditions of its franchise to set aside annually in the hands of trustees a certain percentage on its investment sufficient, with the normal accumulations, to amortize the capital within thirty to fifty years.

"A street railway should be regarded as a public necessity, to be maintained at all times at the highest practicable standard of efficiency irrespective of the expiration or termination of the franchises and irrespective of changes in ownership or in management. While this policy is necessary in any case, it becomes doubly necessary when the city enters into a contract reserving the right to take over the property at a fixed price at some future time. The franchise should, therefore, contain specific provisions in regard to the disposition of earnings, to the extent of requiring certain percentages of gross receipts to be set apart from year to year for maintenance and depreciation, including obsolescence.

"In our opinion the first consideration in the operation of a street railway should be the rendering of sufficient first-class service.

"The second consideration, in our judgment, should be the protection of the capital legitimately invested in this public service.

"We consider that while the question of street railway fares is of great importance it is after all secondary to the furnishing of adequate service, to the honest protection of necessary investment and to the gradual amortization of the capital for the benefit of the city. We think that the franchise should prescribe an initial rate of fare, but should provide for an occasional readjustment either through regulation or by means of an automatic schedule of rates specified in the grant itself.

"We have considered with care the question of compensation for franchises. In our judgment the car riders should not be taxed for the relief of the general tax rate. While there are strong arguments for the policy of requiring a franchise holder to pay taxes at the regular rate on the value of its property outside of the streets, we think

that at least all compensation in excess of this requirement, whether in the form of general city taxes, car license fees, a percentage of gross receipts or a division of net profits, should be applied either to the construction of extensions on the city's account, or to the amortization fund, or should be remitted for the benefit of service or for the reduction of rates."

An appendix to the report gives an outline of the sections for a franchise.

## BERKSHIRE STREET RAILWAY SUSTAINED IN EJECTMENT CASE

The full bench of the Supreme Court of Massachusetts has handed down an opinion sustaining the Berkshire Street Railway Company in a damage suit against it by Nora A. Liversidge, whose husband met his death as a result of being ejected from the defendant's car by a conductor in the company's employ. The facts as developed at the trial were briefly as follows: Liversidge boarded the car at the rear platform and, finding the car was crowded, remained standing in the vestibule. The conductor told him he must go into the car or get off, and he replied that if the conductor would find him a place he would go in. The conductor then repeated his direction to go into the car or get off, once or twice, and then stopped the car and again told Liversidge to go in. As Liversidge again replied that there was not room, the conductor ejected him by pushing him backward off the steps of the car, thereby causing the injuries complained of. The jury found that Liversidge was not a passenger and was not in the exercise of due care.

The plaintiff offered to show, as bearing upon the question of her husband's due care and the negligence of the defendant, that at the time of the alleged assault there was a custom which had existed for a long time for passengers to ride in the vestibules of the defendant's cars; that this custom was known to the defendant, and no objection was made to passengers so riding. The court says:

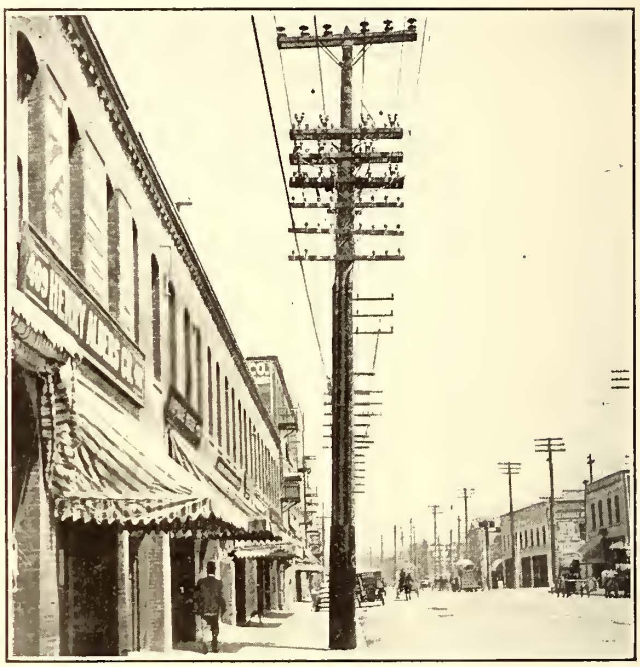
"The custom, however, even if it existed, did not compel the defendant to permit passengers to ride in the vestibule. The only effect of it was to justify passengers in riding in the vestibule in the absence of any objection thereto on the part of the person or persons in charge of the running of the car. Uncontradicted evidence on both sides shows that the plaintiff's intestate was told by the conductor to go inside the car or to get off. We do not see, therefore, how the existence of the custom was material, and we think that the evidence was rightly excluded. The fact that plaintiff's intestate was directed by the conductor to go inside or get off distinguishes this case from those relied on by the plaintiff to show that evidence of a custom on the part of passengers to ride in the vestibule was admissible.

"What we have said disposes, we think, of the first two requests. The first of those was that it was for the jury to say whether a rule of the company which had been introduced in evidence requiring conductors to keep the rear platform and steps clear of passengers when there was room inside was intended to be enforced by the company. The second was that in passing upon the question whether the rule was intended to be enforced evidence of the custom for passengers to ride upon the rear platform without objection was competent for the consideration of the jury. There was nothing to show except the alleged custom that the company had waived the rule. As we have said, the alleged custom did not compel the company to allow passengers to ride in the vestibule or on the rear platform, and when passengers were notified to go inside or to get off the car the custom ceased to be of any consequence. We think that these requests were rightfully refused.

"The third request was given in substance and effect so far as it properly could be given. We do not think that under the rule of the company, or otherwise, it could be said as a matter of law that the plaintiff's intestate, having paid his fare and been received as a passenger, had a right to ride in the vestibule until he could with a reasonable degree of diligence gain admission inside said car. He was subject to the direction of the conductor even after he had paid his fare and been received as a passenger, and if he was requested by the conductor to go inside or get off the car he was bound to do so, leaving the question, if there was any, of the rightfulness of the conductor's action for future settlement. The result is that we think that the exceptions [of the plaintiff] should be overruled."

## SPECIAL USES OF FIBER CONDUIT

It is usual to think of fiber conduit as applicable mainly to underground conduit work, but it also lends itself admirably to many other forms of buried or open electrical



Fiber Conduit Installed on a Pole in Los Angeles.

transmission. For inside work such conduit is of special value for protecting the high-tension wires between the transformers and busbars in power houses and substations; for outside work it is used widely for signal wires, underground feeder connections to third-rails and for pole connections between subway and aerial lines. An example of the last kind is presented in the accompanying view of a pole in Los Angeles, which carries several lines of J-M fiber conduit to the first cross-arm. Fiber conduit appears to be highly desirable for outside work of this character, as the conduit is much lighter than iron pipe and is claimed to be more durable under weathering and far less dangerous in case of leakage from the high-tension cables.

## MASTER CAR BUILDERS' ASSOCIATION CONVENTION

J. W. Taylor, secretary of the Master Car Builders' Association and the American Railway Master Mechanics' Association, has issued a circular announcing the time and place of the 1912 conventions of these associations. Both conventions will be held in Atlantic City, N. J. The Master Car Builders' Association will meet June 12, 13 and 14 and the Master Mechanics' Association on June 17, 18 and 19. The sessions will be held in the Greek Temple on the Million Dollar Pier, where the exhibit of railway appliances will be placed. Reservations should be made at once.

## FORCED DRAFT SYSTEM IN HUDSON & MANHATTAN POWER STATION

Electrical energy for the operation of the trains of the Hudson & Manhattan Railroad is supplied from a central power station in Jersey City, N. J. Owing to the heavy rush-hour traffic at night and in the morning, and the comparatively light traffic during the remainder of the day, the station operates over a wide range of load. The average monthly output is 3,500,000 kw-hours, while the maximum one-hour load is about 13,000 kw. The generating equipment in the station consists of two 3000-kw and two 6000-kw Curtis turbo-generators, or a total of 18,000 kw. Steam is supplied by eight Babcock & Wilcox boilers rated at 900 hp each. All boilers are equipped with Green economizers and the boilers are connected in groups of four to two steel stacks 11 ft. in diameter inside and rising 180 ft. above the street.

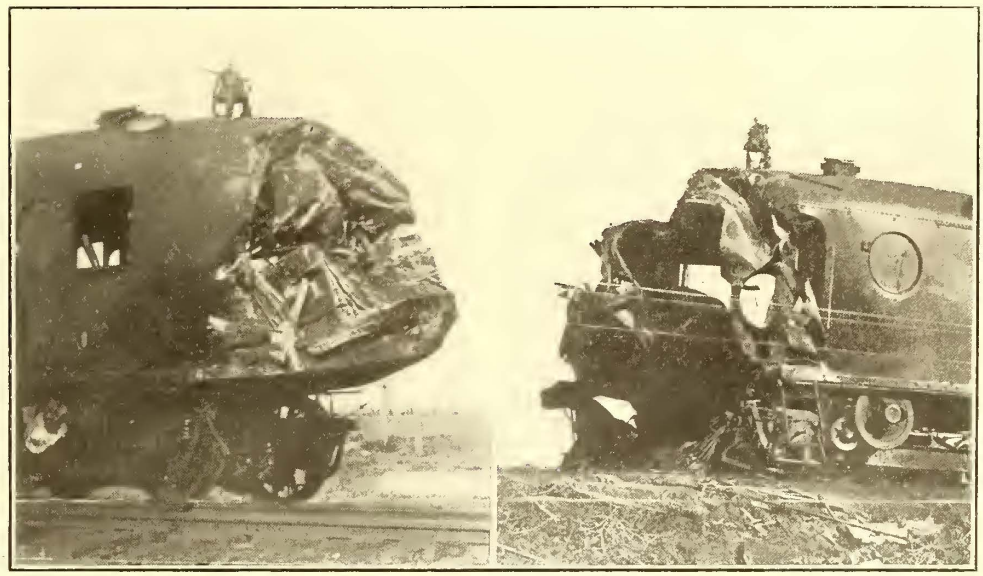
When the station was first put into operation the forced draft was furnished by four engine-driven fans, which gave a static pressure of about 2 in. of water. It was found that this system did not provide sufficient draft to develop the full overload capacity of the boilers and it was necessary to dump the fires under each boiler four times in twenty-four hours in order to avoid too deep an accumulation of ashes. During the past year a forced draft system, designed by Hugh Hazelton, electrical engineer of the Hudson & Manhattan Railroad, was installed by the American Blower Company to supply air to the boiler ash pits at a static pressure of nearly 5 in. of water. The boilers now have a capacity of nearly double their normal rating and the rate of combustion exceeds 30 lb. of coal per square foot of grate area. The coal burned in this station is No. 3 buckwheat anthracite, which requires for economical combustion a much higher air pressure in the ash pit than ordinary grades of coal.

A double-inlet, double-width Sirocco fan is installed in the boiler room basement and is completely inclosed by terra cotta tile walls forming an air chamber. Air is taken into this room through three windows. The fan shaft is supported in bearings which are outside of the walls of this room. This permits the bearings to be oiled without going into the fan room. The fan wheel is 72 in. wide and 72 in. in diameter. It has sixty-four blades and this large number of blades reduces the eddy currents within the fan to a minimum. The blades are narrow and concave and they are so mounted that the distance between the edges of the blades on the outside surface of the fan is less than the distance between blades on the inside surface. This increases the velocity of the air as it passes between the blades.

The fan wheel is mounted on a shaft 16 ft. long, 6 in. in diameter at the bearings and 9 in. in diameter at the center. The enlarged diameter at the center insures rigidity. At one end the shaft is coupled to a 500-hp, 25-cycle, 450-volt, three-phase induction motor which operates at a speed of 480 r.p.m. At this speed the fan has a capacity of 209,000 cu. ft. of free air per minute and gives a static pressure of 4.9 in. of water and a dynamic pressure of 7.5 in. of water. The fan discharges through two dampers into a horizontal sheet-iron duct running under the boilers. From this duct the air is passed into the ash pit under each boiler through four branch pipes in each of which is a damper. This arrangement of dampers provides means for controlling the supply of air to each boiler. The fires are now dumped on an average only three times in each twenty-four hours and this is done at periods off the peak load when the temporary shutting down of one or two boilers does not affect the supply of steam to the turbines.

## EFFECT OF COLLISION BETWEEN TWO STEEL CARS

The accompanying illustration from a photograph shows the damage to two 70-ft. McKeen steel motor car bodies which collided on a sharp curve with an impact velocity of between 75 and 85 m.p.h. No loss of life resulted from this collision as both motormen jumped before the cars came together and none of the passengers in the rear compartments of both cars was badly injured. Some of the passengers sustained bruises and slight injuries, but no bones were broken. The cars did not telescope and were not damaged except for the crushing of the pointed front ends. The gasoline engines in the front ends of both cars were uninjured and not a wheel under either car left the rails.



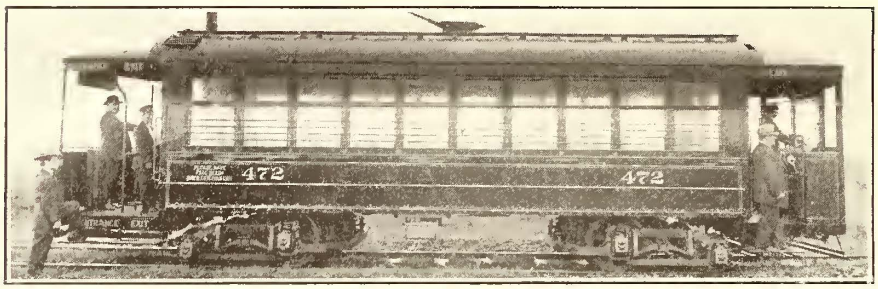
Steel Cars After Head-On Collision

The comparatively small damage to the cars and the prevention of serious injuries to any of the passengers are claimed to be due to the type of steel construction employed in these cars. A single I-beam center sill connects the forward end and the rear end of the car and the steel channel side sills are continuous around the entire car. The depressed side sill in the middle of the car enables a combination plate and truss girder to be worked out of the side of the car so that the sides of the car are utilized for carrying the weight, resisting the major portion of the stresses set up in case of collision. The use of the round windows enables the diagonal braces to run up to the requisite height. No posts are used in these cars, but ribs and stays similar to those in a ship extend from one side sill to the other, forming in one piece the posts and carlines, and tying the superstructure to both side sills. The rigid rectangular bracing in the center and over the body bolster at the end of the car affords great strength. The rigid triangular braces connecting the depressed side sills with the center sill of the car also are a very efficient feature.

In a collision a car with this type of framing has the whole metal cross-section brought into play to resist the shock.

## FLAT-ARCH PREPAYMENT CARS FOR SAVANNAH

The Savannah (Ga.) Electric Company has recently placed in service three flat-arch, semi-steel prepayment cars which were built by the St. Louis Car Company in accordance with the Stone & Webster Engineering Corporation's standard design for city service on Stone & Webster properties. So far as the body construction is concerned, this car is the same as that used in Houston, Tex., except for some differences in the platform arrangement. The motorman's platform is partly vestibuled in cold weather and has a gate instead of a door for the exit; the conductor's platform is also doorless, but is inclosed on the left by a continuation of the dasher and a screen 24 in. high. The rear bulkhead has double sliding doors which give a clear opening of 40 in., while the front bulkhead has a single sliding door with a 26-in. opening for exit only. These cars have been built for single-end operation, but an extra controller and brake staff have been installed for emergencies. The platform steps are stationary. There are two longitudinal and eight cross-seats on each side of the car. The principal car dimensions are as follows:




One of Three Arch-Roof Cars for Savannah, Ga.

| | |
|---|---|
| Length over the corner posts | 26 ft. 6 in. |
| Length over the dashers | 37 ft. 6 in. |
| Length over the front dasher from body corner post | 6 ft. |
| Length over the dasher, rear end, from body corner post | 6 ft. |
| Length over the buffers | 38 ft. ½ in. |
| Width inside below the windows | 8 ft. 3½ in. |
| Width over the sheathing | 8 ft. 4 in. |
| Width over the drip rails | 8 ft. 3½ in. |
| Distance from top of floor to point of arch | 6 ft. 3 in. |
| Distance from top of rail to top of body floor | 37½ in. |
| Distance from top of rail to top of the platform | 28 in. |
| Distance from top of rail to top of step | 15 in. |
| Cross-seat spacing | 2 ft. 5 in. |
| Length over ends of cross-seats | 35 in. |

Interior of Savannah Car

The 5-in. x 3-in. x ⅜-in. side sill steel angles extend around the 4-in. x 6¾-in. oak end sills in one continuous piece, all fastened together with riveted steel plates. The end sills are tenoned to the side sill fillers. The 2¼-in. x 5-in. oak cross sills are reinforced by angle irons and 3/16-in. x 5-in. steel plate. These angles and plates are bolted to the side sill angles. The outside platform knees are of 7-in. x 3½-in. x ½-in. angle iron with ½-in. x 6-in. x 48-in. reinforcing plates; the step knees are of 1¾-in. x 7-in. oak; the center platform knees are 2½-in. x 6-in. oak and the platform knee braces of ½-in. x 3-in. steel. The cast-steel body bolsters weigh 420 lb. each. A rather interesting feature of the side construction is that the outside lower panel is a continuous piece of 3/16-in. x 15-in. steel plate extending to the center of the end sills, while the upper outside panels consist of sections of No. 16 sheet steel lined with 3/16-in. agasote.

The side posts, which are of 2-in. x 2-in. x ¼-in. T-iron, extend from side sill to side sill to form both the roof rafters and posts. The post fillers above the window rests are of ⅜-in. x 2½-in. oak. The letterboard is of 1¼-in. poplar and the roof of ¼-in. agasote. The general finish of the cars is in mahogany. The bodies are olive green and lettered and numbered with gold. The equipment of these cars includes Sterling-Meaker brakes, Hale & Kilburn reversible seats with pressed steel leg and ends, Curtain Supply Company's and O. H. Edwards window fixtures, H-B wheel guards, Consolidated Car Heating Company's push-button system, Hunter destination signs, Crouse-Hinds headlights and Knutson retrievers.

## NEW DEVELOPMENTS IN RAILWAY TELEPHONE APPARATUS

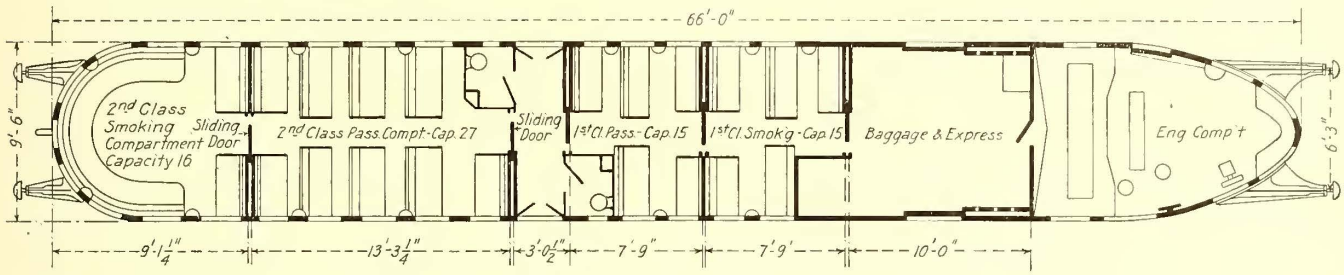
During the past year the Western Electric Company has perfected and introduced several new telephone devices designed especially to meet the peculiarly severe conditions encountered in railway train dispatching. Among these are the loud-speaking receiver which is adapted for use in stations and block towers. Tests of this type of telephone receiver made under the most severe conditions show that the articulation is very distinct and the tone is of sufficient volume to enable the operator to hear clearly even when the noise of passing trains is very loud. Another device is a "group" selector which has been adopted by a number of railways. The dispatcher, by operating a selector key, first picks out automatically a group of five selectors and then a particular selector of the group. A new type of vacuum lightning arrester for railway telephone circuits also has been perfected. Low maintenance cost and high efficiency are claimed for it.

A selective operated dispatcher's semaphore signal is another new development. The semaphore blade and spectacle casting are of the standard type and are mounted on the top of an iron mast. At a convenient height on the mast is mounted a weatherproof iron box containing the selector set and telephone equipment. The dispatcher can set the signal to the stop position by operating a selector key and the train crew can call the dispatcher for orders when the train stops at the signal. An answer-back signal informs the dispatcher positively that the signal has been set to the stop position.

A concession has been granted to a syndicate presided over by M. A. Barras for a narrow-gage electric railway from Fribourg to Bulle, by way of Pérolles, Marly, La Roche, Thusy and Riaz, Switzerland. The cost is estimated at about £260,000.

## GASOLINE MOTOR CARS FOR THE VICTORIAN RAILWAYS, AUSTRALIA

The Victorian Railways, Melbourne, Australia, have recently purchased two 70-ft., 200-hp gasoline motor cars from the McKeen Motor Car Company, Omaha, Neb. These motor cars were shipped on five flat cars from Omaha to Tacoma, Wash., where they were transferred to a steamship of the Frank Waterhouse Line running to Melbourne. The two boxes containing the car bodies were 70 ft. long, 11 ft. wide, and 10 ft. high, and are said to be the largest boxes ever shipped in the history of rail or water transportation.




Floor Plan of Motor Car for Victorian Railways

These cars are of the standard McKeen type adapted to the special requirements of the Victorian Railways. The general dimensions and appearance of the cars are shown by the accompanying illustrations. They are built for 5-ft. 3-in. track gage and are equipped with British standard coupling and buffing gear at the front and rear. The center side-door entrance is especially designed for handling passengers on elevated depot platforms, which are commonly used in Australia. The cars are built to accommodate thirty first-class passengers and forty-three second-class passengers. Each class of passengers is provided with smoking and non-smoking compartments, which are divided by bulkheads fitted with sliding doors. The second-class passengers are placed in the two rear sections and the first-class passengers are accommodated in the two sections between the center side entrance and the baggage room at the front end of the car.

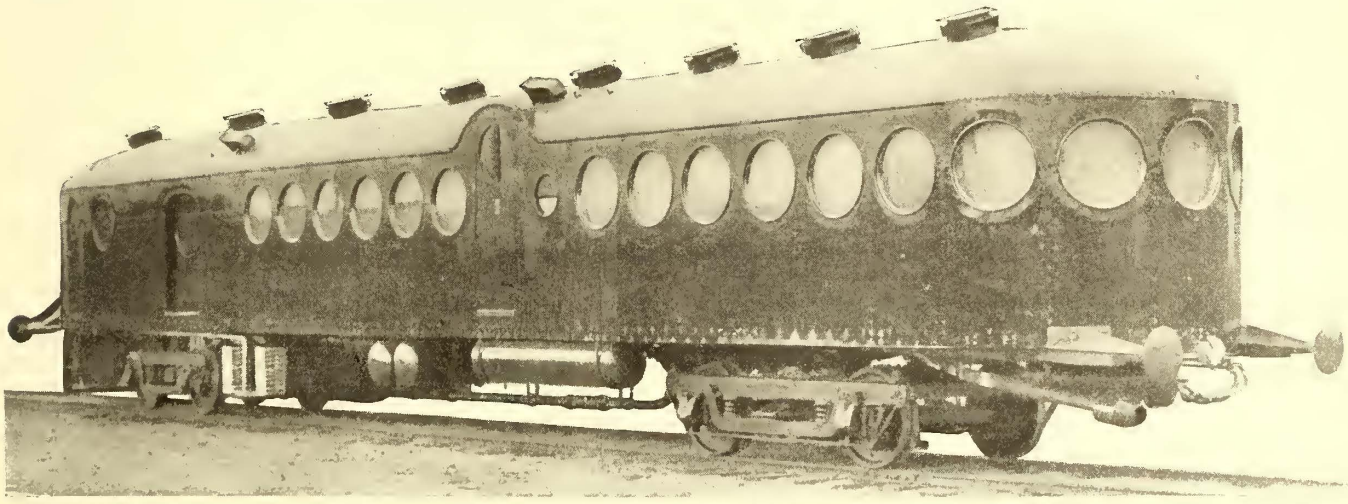
The cars are built of standard rolled-steel sections and plates. The center sills are 8-in. I-beams, and the two lower side sills are 6-in. channels. The side sheets are of No. 12 gage Bessemer steel and the roof sheets are No. 16 gage Bessemer steel. Light channels are used to form the combined posts and carlines, which are continuous from side sill to side sill, thus giving the greatest possible strength with the least possible weight. The circular windows in the sides are constructed like ship portholes and are wind, dust and water-proof.

The cars are ventilated automatically by the motion of the car. Fresh air is admitted through an intake and passes over the car heating coils. The foul air is exhausted by suction ventilators in the roof. The lighting is by the Commercial acetylene system using compressed gas stored in a tank.

The cars are propelled by 200-hp air-starting, reversible gasoline engines. The engines are of the four-cycle, six-cylinder type with cylinders 10 in. in diameter by 12-in. stroke. The valves are nickel steel, 4 in. in diameter and are mechanically operated. The ignition of the engine is by both magneto and coil; the coil is supplied with duplicate sets of accumulators.

The engine is mounted on the front truck and is independent of the car body. The drive is direct from the engine by a 5-in. Morse silent chain, the driving sprocket uniting the two halves of the crank shaft. The driving half of the friction clutch, together with the driven sprocket, are mounted directly on the main axle. The drive from the friction clutch to the axle is transmitted by means of a sliding clutch. Steel-tired driving wheels, 42 in. in diameter, are used. The wheels on the rear axle of the motor truck and both axles of the rear truck are rolled steel 33 in. in diameter.

The engine is water-jacketed, the jacket consisting of 1/8-in. copper sheet. The cooling water is circulated by a gear pump through the pilot radiators, the two rear radiators and the car-heating coils. The heating coils in the body of the car are cut out of the cooling water circulation system in warm weather.



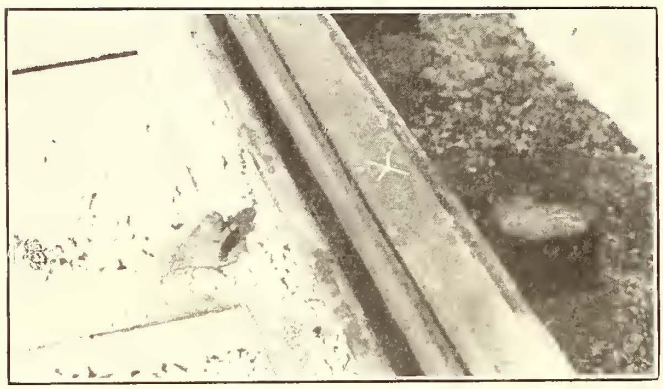
Gasoline Motor Car for Victorian Railways, Australia

The general dimensions of these cars are given in the following table:

| | |
|---|---|
| Gage | 5 ft. 3 in. |
| Length over all | 70 ft. |
| Length of baggage compartment | 10 ft. |
| Length of first-class compartment | 15 ft. 6 in. |
| Length of second-class compartment | 21 ft. 1/4 in. |
| Width over all | 10 ft. |
| Height over all | 11 ft. 9 3/16 in. |
| Weight | 68,000 lb. |

## ROMAPAC RAIL INSTALLATIONS IN CHICAGO AND ELSEWHERE

Following the authorization in September, 1911, by the Board of Supervising Engineers, Chicago Traction, of the installation of Romapac rail on the South Halsted Street line of the Chicago City Railway, the machine for laying the rail was shipped from England to Chicago, where about a mile of track has since been laid with it. Another



Romapac Rail—Cross Showing Joint of Head Rail After Being Crimped

mile is under order from the same company and 2 miles from the Chicago Railways. The composite rail and the machine have been referred to in former issues of the Electric Railway Journal (March 3, 1906, and Sept. 23, 1911). These rails have been laid abroad, but Chicago is the first city in America to have them.

DESCRIPTION OF RAIL AND PROCESS OF APPLICATION

The composite rail consists of a lower or base rail and an upper head with flanges for crimping it on the top of the base section. The machine for doing this work carries

Romapac Rail—Machine on South Halsted Street, Chicago

rollers which bend the flanges of the head securely into place by cold rolling. This machine also possesses means whereby the flanges can be cut and the head torn off to prepare the base for a new head. When wear makes renewal necessary the head of the rail only is removed, and a new head is crimped on.

A special feature in the working of the machine is that in both the operation of crimping on and of cutting off all of the strains are confined to the head rail. There are no strains or leverage on the lower or base rail, between the two rails, or on the ties or concrete, other than those that are due to carrying the weight of the machine, which is not more than the weight of the ordinary cars. In the crimping operation the rollers engage on both of the head-rail flanges, and they are drawn together by means of powerful gearing as they revolve backward and forward. In the meantime, the machine is traveling backward and forward on the track which is being crimped. This is continued until the flanges firmly clip the base rail. From six to ten passes are generally required for this purpose.

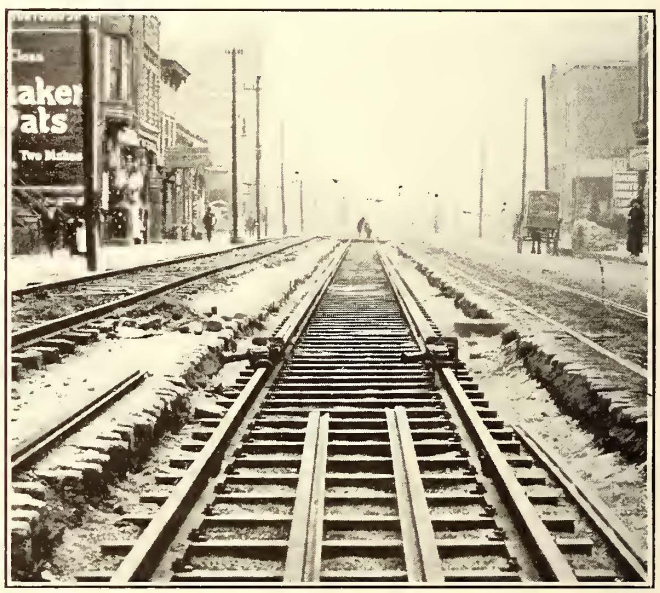
THE PROCESS OF REMOVAL

The cutting operation is performed in a manner very similar to the crimping, by fitting a cutter disk in the place of one of the crimping rollers. A cut is made into the top of the outside flange of the head rail to a depth equal to about two-thirds of its thickness, which weakens the flange in a true line along its entire length.

The breaking machine is then placed in position on the rail. This machine has two hook-shaped tools which engage with the lower and inner edge of the head-rail flanges. These tools are fixed into rocking levers which are caused to open and close by means of cams and toggles as the machine travels along the track. These hook tools give about 500 outward pulls a minute, with the result that the cut and thereby weakened flange is torn off in a strip the full length of the rail. The head rail has now no grip on to the base rail and is easily thrown off.

ACTION OF ROLLERS IN CRIMPING

The action of the rollers upon the flanges of the head rail, it is claimed, not only closes them tightly into the grooves in the head of the lower or base rail, but it rolls them in such a manner as to impart to these flanges a latent force which acts in an inward direction. In other words, these flanges are converted into cold-rolled springs of great power, which grip the base rail the full length with a spring grip. This is due to the hardening, cold tempering and drawing of the flanges by the roller action,



Romapac Rail—Ends of Head Rails Held by Jacks to Prevent Slipping During Crimping

which produces in them a far greater elastic limit than that possessed by the other parts of the rail. This explains the fact that in the test for adhesion almost the same pressure had to be applied each time to start a movement between the two sections of the compound rail.

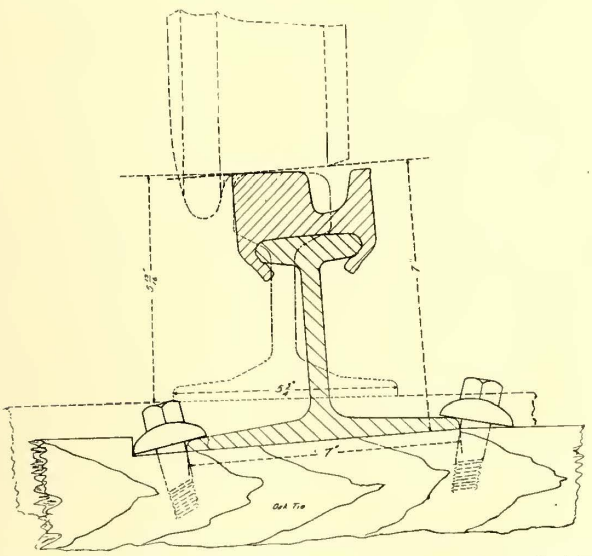
COMPARISON OF CHICAGO AND LEEDS CONDITIONS

The machine which during November, 1911, laid about a mile of single track in Chicago on South Halsted Street, between Thirty-first and Thirty-ninth Streets, also laid the test track in Leeds, England, in September, 1906. The

base section of the Leeds rail weighed about 65 lb. and the head section about 56 lb. These sections when crimped together formed a grooved rail which complied with the standard British section No. 4, which should weigh 105 lb. per yard. The Chicago rails weighed about 158 lb., the base about 77 lb. and the head about 81 lb., forming together a trilby rail which complied with the Lorain Standard No. 403, which should weigh 129 lb. to the yard. The whole Romapac rail installation was laid in pavement on Carnegie steel ties and fastenings with 8 in. of rolled crushed rock ballast under the ties.

On Sept. 5, 1911, contracts with the Continuous Rail Company, New York, were approved, and between this date and Oct. 20 the machine was adapted to crimp the heavier Chicago rails, shipped by express from Leeds to Chicago and set up ready for work. As this machine was not built for the heavy Chicago section, the Continuous Rail Company has in hand designs for heavier machines.

The head section of the Chicago rail had flanges of over 31/64 in. at ¾ in. from their tips, increasing to over 17/32 in. at the highest point of bending. The Leeds flanges measured respectively 25/64 in. and 13/32 in. The specifications for the latter gave the limits for carbon as 0.40 per cent to 0.50 per cent, and for the Chicago rails



**Romapac Rail—Diagram Showing How Rail Was Laid for Test on Metropolitan Railway, Paris**

as 0.50 per cent to 0.60 per cent. In both cases the crimping was done in unfavorable weather, but the variations of temperature during the track laying in Chicago were abnormal, as extremes of 74 deg. Fahr. and 13 deg. Fahr. were registered in 24 hours.

RESULTS OF MECHANICAL TESTS

None of the Chicago section was specially crimped for testing purposes, but a short length of track on Halsted Street was cut out immediately north of the crossing at Thirty-fifth Street, and one rail was obtained from which tests were made. This rail had been crimped in the usual course of work without any plan that it would afterward be taken up. The crimping was done during a night when the temperature never rose above 27 deg. Fahr., so that it should represent work rather below the average.

A piece 12 in. long cut from the rail was delivered to R. W. Hunt & Company for testing. They reported that it required a pressure of 72,330 lb., or over 36 tons, to start a slipping movement of the head section over the base, and that when this pressure had been removed it required almost the same pressure again to start a movement, proving that the flanges have an elastic or spring grip. A similar test made of a piece of the Leeds rail at the engineering laboratory of the Leeds University required a pressure of about 28 tons to get an initial slip. The difference of about 8 tons per foot, or 27½ per cent, represents the additional grip of the average Chicago crimping over the Leeds rail which had been specially crimped for testing purposes.

COPY OF REPORT BY R. W. HUNT & COMPANY

"The following is a report of our longitudinal shearing test of the 12-in. length of Romapac rail section submitted:

"The specimen was set with the direction of rolling vertical between the crushing heads of our Riehle testing machine, which operates vertically. The base section was supported on the bed of the testing machine and the load applied upon the head section alone. The center of bearing on the head section was made as close as possible to a position directly above the center of bearing on the base section.

"The loads were increased slowly in the conduct of the test. The measurement of the slip was measured between center punch marks upon the web of the base section and the flange of the head section. The results follow:

| Loads Applied, Lb. | Distance Between Center Punch Marks. | Slippage, Inches. | Remarks. |
|---|---|---|---|
| 0 | 6.01 | 0 | |
| 10,000 | 6.01 | 0 | |
| 20,000 | 6.01 | 0 | |
| 30,000 | 6.01 | 0 | |
| 40,000 | 6.01 | 0 | |
| 50,000 | 6.01 | 0 | |
| 60,000 | 6.01 | 0 | |
| 70,000 | 6.01 | 0 | |
| 72,330 | 5.98 | 0.03 | Accompanied by a loud report. |
| 66,440 | 5.97 | 0.04 | |
| 59,320 | 5.94 | 0.07 | Accompanied by a second loud report. |
| 55,000 to 57,000 | 5.88 | 0.13 | |
| 48,000 to 52,000 | 5.79 | 0.22 | Accompanied by six repeated reports. |
| 49,000 to 50,000 | 5.60 | 0.41 | Accompanied by twelve repeated reports. |
| 49,000 to 50,000 | 5.43 | 0.58 | Accompanied by continuous or intermittent reports. |

USE OF ROMAPAC RAIL IN PARIS

A practical test has meanwhile been made on the Gambetta loop of the Metropolitan Underground Railway, Paris. When it was proposed to make this test the contractor had rolled only the British Standard No. 4 (7-in. x 7-in.) grooved steel rail, but to avoid delay this rail was used as shown in the accompanying sketch. The rails were placed with their grooves to the outside, and by means of specially shaped ties were set over at an angle from the vertical sufficient to show the reverse angle on the head, true and in running line with the ordinary T-rails. They were then fished up with joggled fishplates on a curve of 164-ft. radius. This arrangement brought the full load of the wheels upon the extreme inner edge of the head. The Romapac rail has already stood this severe test with satisfaction for over sixteen months.

## BLOCK SIGNALS ON THE ILLINOIS TRACTION

The installation program for the protection of about 125 miles of track with automatic block signals, as announced last January, has now been completed. The last section of block signaling to be put into service is between Granite City and Edwardsville. With this equipment practically all of the hazardous districts on the main line of the Illinois Traction System are now operated under signal protection. The details of the installation were described on page 1105 of the ELECTRIC RAILWAY JOURNAL for June 24, 1911, in an article by John Leisenring, signal engineer of the Illinois Traction System. The signal equipment was manufactured by the Union Switch & Signal Company, and consists of the Style B mechanism, 15-ft. steel masts, 4-ft. 6-in. semaphore blades operated in the upper left-hand quadrant and continuous track circuit control, the energy for the signal system being supplied by a separate single-phase line fed from rotary-converter substations. The records show an average of but two signal failures per 1000 train movements.

# News of Electric Railways

### Proposal of Toledo Company Considered by Council

The representatives of the Toledo Railways & Light Company and the officers of the city of Toledo, Ohio, conferred on Dec. 15, 1911, in regard to the proposal from the company published in the Electric Railway Journal of Dec. 16, 1911, page 1247. Mayor Whitlock stated that if the company would agree to operate the lines at the rate of seven tickets for 25 cents and universal transfers pending a final agreement he felt that a settlement could be reached within six weeks. The Mayor said that the principal objection on the part of the officials of the city to the proposal made by the company on Dec. 11, 1911, related to the valuation of $8,000,000 placed by the company on the property, exclusive of the power plants. This was too high, and a valuation of the property should be made to establish a basis upon which income could be estimated.

The Mayor stated that he favored an ordinance similar to the Cleveland or Detroit ordinances and that he would agree to have a valuation made under proper conditions.

F. R. Coates, president of the company, replied that he was willing to make a rate of six tickets for 25 cents with universal transfers, but that the directors would have to be consulted before this rate could be adopted. They will meet on Dec. 28, and Mayor Whitlock asked Mr. Coates to communicate with them so as to arrive at a conclusion as soon as possible.

Cornell Schreiber, city solicitor, said that the present basis of operation was preferable to the proposition made by the company. The company should pay for paving, because the pavements were damaged by the cars. He was opposed to any allowance for intangible values. He had been elected to office on a 3-cent-fare platform and he could not consistently consider any other rate of fare. He asked for a temporary reduction in the fare pending a settlement, and was opposed to proceeding with the negotiations until a temporary reduction had been granted.

Mayor Whitlock stated that, in so far as it could be done legally, he was willing that the city should be bound by any finding that a board of appraisers might make as to the value of the property and would ask the City Council to consider the matter in this light. He believed that by a vote prior to the making of such valuation the Council could indicate its willingness to ratify the action of the board. With this understanding it was agreed that the work of valuing the property should be started at once.

On Dec. 16 it was announced that Frank R. Ford, New York, and Prof. E. W. Bemis, Cleveland, with Federal Judge Killits, of Toledo, as arbitrator, would compose the board of appraisers. Mr. Ford will represent the company and Professor Bemis the city. Judge Killits was selected by agreement between the city and the company.

At the conference it was stipulated by Mr. Coates that if the company granted seven tickets for 25 cents with universal transfers, and after a period of perhaps six months the fare was demonstrated to be unreasonable from the company's standpoint, the next higher rate of fare could be put into force, the city to have supervision of the company's books. Mayor Whitlock agreed to have this condition put into the franchise.

Mr. Coates stated that the power houses could not be included in the proposal of the company because they were used for the operation of the railway lines and for lighting purposes. A separate company will probably be formed to own and operate these plants and the gas system. The railway will purchase its power from this company.

The Toledo Railways & Light Company has arranged with Blair & Company, New York, N. Y., for an extension of the time of payment of the consolidated first mortgage bonds of the Toledo Traction Company, due Jan. 1, 1912, to Jan. 1, 1913, with interest at 6 per cent per annum, payable semi-annually, subject to redemption at the option of the Toledo Railways & Light Company on July 1, 1912, on thirty days' notice. The company has also arranged for an exchange of the bonds of the Toledo Consolidated Street Railway and the Toledo Electric Street Railway for extended bonds of the Toledo Traction Company. Holders of the bonds of the Toledo Consolidated Street Railway and of the Toledo Traction Company who do not desire to avail themselves of the exchange privileges will receive par for their bonds upon delivery of their holdings on or after Jan. 1, 1912, to Blair & Company, as will also the holders of the bonds of the Toledo Electric Street Railway who do not desire to avail themselves of the exchange privileges.

It is stated unofficially that plans tentatively agreed upon for the reorganization of the Toledo Railways & Light Company provide for the sale of $5,000,000 of first mortgage bonds and first preferred 6 per cent cumulative stock to care for about $8,000,000 of indebtedness of the company. The purpose is said to be to retire the $6,000,000 of first mortgage bonds of the company at par during the year, exchange the 4 per cent consolidated mortgage bonds represented by the protective committee for 4 per cent cumulative preferred stock at par and require the common stockholders to pay an assessment of $7 a share in return for full participation in the new common stock.

### Four Years of the Public Service Commission in New York City

"Four years of the Public Service Commission, First District," was the topic which was discussed at a luncheon of the City Club, New York, on Dec. 16, 1911. Commissioners Malthie, Eustis and McCarroll, of the First District, were guests. Edward M. Bassett, former member of the commission for the First District, and John N. Carlisle, former member of the commission for the Second District, were at the luncheon. Paul D. Cravath presided. He said he had prepared himself for the luncheon the night before by looking over the minutes of certain meetings of corporation attorneys held while the Public Service Commission law was before the Legislature. He said:

"The doubts and fears that were then expressed now seem ludicrous, and it is hard to believe that such opinions were entertained by intelligent men of affairs. Many of us now think the corporations would be better off if the commission were endowed with wider powers. One reason for this feeling is that we are relieved of our annual struggle with the Legislature, which was a perfect nightmare. The year before the commissions came into existence more than 200 bills were introduced affecting the railroads. A large part of our time was devoted to useless hearings on useless bills. Since then the average has been thirty-five or forty bills, mostly unimportant. Instead of busy and untrained legislators to deal with we have trained men who give their entire time and thought to the subject. No one not familiar with the affairs of public service corporations can realize the enormous difficulties and complications there were to be met when the commission came into office. The surface railways in the boroughs of Manhattan and the Bronx were on the point of insolvency; the laws of the State on the subject were in the worst condition they had ever reached, principally because of the Elsberg law, the principal operating railway was unpopular, there was a constant agitation by associations in every borough that knew exactly what ought to be done, and there was incessant and frequently thoughtless newspaper agitation. A commission of archangels could not in four years have solved all the problems. In my opinion, all things considered, the commission has done exceedingly well, and no commission, in the face of such enormous difficulties as have confronted it, could have accomplished real, final, sweeping results or gained the popular approval that every public official desires."

Mr. Carlisle said:

"We have come to consider certain functions as necessary monopolies, and since the people grant these monopolies they ought to have the power of regulating them. The essential thing the commissions are established to procure is adequate and safe service at a reasonable rate. I think the law ought to be strengthened materially and that when the constitutional convention meets the commissioners should be made constitutional officers, so that their tenure

would be independent of the Legislature. When I was investigating the work of the commission for the First District at the request of Governor Dix I went all over the subway, and I was never so impressed in my life as I was by the mechanical ability that had been exercised, with much expense, largely at the instance of the commission, with the result that the subway is carrying nearly three times the number of people it was built to accommodate. Yet people complain because it will not carry six times as many."

### Public Utility Bill for Washington, D. C.

On Dec. 14, 1911, Senator Gallinger, of New Hampshire, introduced in the Senate a bill to provide a public service commission to supervise the affairs of the public service companies which operate in Washington, D. C. The bill was prepared by Corporation Counsel Thomas of Washington, under the direction of the Senator. The primary basis for the measure was the Wisconsin law. The Wisconsin law was modified, however, in subsequent legislation in Michigan, and the changes applicable to the situation in Michigan were embodied in the Gallinger measure in one or two instances. Practically all provisions of the Wisconsin law applicable in Washington have been put in the Gallinger bill. Provisions for the regulation of gas and electric corporations were copied from the New York State law.

There are a number of provisions not found in any other law. One of these considers the extension of street railways and another has to do with changes of facilities and equipments of all public service corporations and public carriers. Other laws consulted were those enacted by Texas, Connecticut, Pennsylvania and New Jersey. A provision requiring all street railways to comply with all laws, regulations and charter provisions is an adaptation of a provision in the New Jersey law. There is a provision in the Gallinger bill requiring that when any bill affecting a public utility is introduced into Congress it shall also be presented to the public utilities commission, which shall report upon it to Congress. A part of the procedure and some of the provisions of the Interstate Commerce Law are also to be found in the Gallinger bill. The provision of the Wisconsin law in regard to physical valuations of properties is changed in the Gallinger bill by the substitution of Section 30 of the Maryland act. This provision gives power to the proposed public utilities commission to make a fair valuation by any means which it may deem proper.

The procedure before the commission embraces features making its action in the first instance *prima facie* valid, and providing for review of its findings by the Supreme Court of the District of Columbia, on appeal to the Court of Appeals, and thence to the Supreme Court of the United States. The public utility corporations and the commission are both given the privilege to apply to the courts. For instance, in the determination of valuations the commission is authorized whenever in doubt as to the elements of property of any public utility to apply to the court for instructions. The bill further provides that the Commissioners of the District of Columbia shall constitute the public service commission.

### Steinway Tunnel Rights to Be Determined

At the request of the Public Service Commission of the First District of New York Attorney-General Carmody has begun an action to establish the rights of the city to the Steinway tunnel. The tunnel was not completed within the time stated in the franchise, and the city of New York brought suit against the New York & Long Island Railroad, which held the franchise, to establish the contention that the franchise had been invalidated. It was finally decided that the city had no right to bring the suit, as the State had granted the franchise. As the city would not give any franchise for the operation of the tunnel, it has been lying idle. Some time ago August Belmont, Andrew Freedman, H. Van Rensselaer, Walter Luttgen, Walter G. Oakman, William Barclay Parsons, John Pierce and George W. Young, trustees who represent the Interborough Rapid Transit Company, were appointed to hold the property. After the Interborough Rapid Transit Company failed to sell the tunnel to the city it included with its subway offer a plan to operate the line. The tunnel, which runs under the East River from Forty-second Street to Astoria, would serve the Borough of Queens. By extending the tunnel to the Grand Central terminal passengers could transfer to the present subway. The Public Service Commission agreed to expend $1,500,000 to connect the tunnel with the present subway if the Interborough Rapid Transit Company would operate it in connection with improvements of its present service. Since the city refused the subway proposition of the Interborough Rapid Transit Company the company has made no further overtures to place the tunnel in operation.

### Collapse of an Old Highway Bridge Under an Electric Car

On Dec. 19, 1911, a 132-ft. 8-in. span of a highway bridge across Assiscunk Creek, at East Pearl Street, Burlington, N. J., collapsed under a 19-ton double-truck closed car operated by the Riverside Traction Company. The car carried ten passengers, none of whom was seriously injured.

A heavily loaded car from the opposite direction had just crossed the bridge at ordinary speed when the car which caused the collapse entered from the expansion end, going very slowly. The motorman noticed the movement of the bridge and stopped his car when the forward truck was about 8 ft. past the abutment. Both ends of the span were pulled off the abutments and the entire superstructure fell on the creek bottom. The bridge belonged to Burlington County and was built in 1881. When the track was laid across the bridge the floor was reinforced by 15-in. I-beam stringers under the rails.

The bridge had two light through eight-panel Pratt trusses, 20 ft. high and 20 ft. apart on centers, carrying a roadway and one electric railway track between trusses and one cantilever sidewalk. The upper chords and end posts were four-segment Phœnix C columns, the end posts were four-segment Phœnix B columns, all with cast-iron connection blocks. The main ties and lower chords were eyebars 2½ in. and 3 in. wide and from ⅝ in. to 1⅜ in. thick. The floor beams were 5-in. I-beams weighing 200 lb. per yard. Floor joists were originally wooden beams. All metal was double-refined iron. The bridge was proportioned for a general live load of 1800 lb. per lineal foot, or for a panel live load of 2400 lb. per lineal foot.

### Need for Increased Service in Cleveland

The need of increased street railway facilities is becoming noticeable in Cleveland again. The Cleveland *Leader* published the following editorial on Dec. 13, 1911:

"One thing which the people of Cleveland certainly did not mean to do when they voted for the street railroad settlement was to bring on the community such conditions of service as are now being endured. There was never any intention to cause such crowding as the passengers of the street railway system of Cleveland are subjected to, day after day.

"The situation is worse than ever. The passengers have increased by millions, but the cars are not more numerous than they were when Cleveland was much smaller. There has been practically no expansion in the facilities for traffic in the last two years, though the business of the street car lines has grown fast and steadily.

"The traction company appears not to be the offender in this discreditable situation. Its officials have professed entire readiness to buy more cars and provide more power to operate the lines as soon as permission to do so shall be granted by the Council. That body has been reluctant to act, apparently for the reason that the rate of fare may have to be raised some time in the near future, and there is fear of the political consequences of authorizing expenditures which might affect the price of tickets.

"This is folly. The public wants the lowest fare consistent with tolerable service, but it certainly does not want the conditions now existing to continue indefinitely. There are worse things for the car riders than the possibility of paying a cent for a transfer."

### Decision in Seattle Fare Case

Ruling upon demurrers in the criminal cases against employees of the Seattle, Renton & Southern Railway, Seattle, Wash., Judges John F. Main and J. T. Ronald have rendered a joint decision declaring the criminal section of the Washington Public Service Commission Law unconstitutional. Five cases against railway employees for collecting a fare in excess of 5 cents within the city limits were filed in the Superior Court, one on appeal from a justice court, where conviction was had. Under the provisions of the Public Service Commission Law the corporation is subject to a fine of $1,000 and the agent or employee to punishment by fine or imprisonment. The court holds that the criminal feature of the law, contained in Section 95, is not embraced in the title of the act, and is therefore unconstitutional. The law provides that actions are to be commenced by the Attorney-General of the State, provides for the regulation of rates by the Public Service Commission and the fixing of reasonable compensation for railway, gas, electrical and other companies, and indicates that in all cases under the act the procedure shall be the same as in ordinary civil cases. Section 95 provides that every employee who violates the act shall be guilty of a gross misdemeanor.

### Proposed General Traction Consolidation in Chicago

The negotiations for the consolidation of the elevated and surface railways in Chicago are proceeding slowly. A commission is at work to determine the valuation of the properties of the elevated railways, the valuation of the surface railways having been determined in the traction settlement ordinances of 1907. The present commission consists of John Ericson, city engineer; E. C. Shankland and J. J. Reynolds, members of the subway commission of the city of Chicago; George Weston, the city representative on the Board of Supervising Engineers, Chicago Traction, and Prof. George F. Swain, of Harvard University, who represents the companies. Prof. Swain is the engineer of the Massachusetts Board of Railroad Commissioners and a member of the Boston Transit Commission. It is interesting to note that the valuation commission is instructed to consider the following elements of cost:

(1) The cost of reproducing the tangible physical property new at the present time.

(2) The present depreciated value of the tangible physical property.

(3) The value of the franchises, leases, contracts, etc.

(4) The loss of interest in the past below what would be a fair return on the capital invested.

(5) The treatment of obsolete or abandoned property.

The suggestion that the commission report on all these elements of cost came from the companies, and the city agreed to make these valuations without, however, binding itself to take into consideration any other items than the actual physical value of the present tangible physical property. In a communication dated Dec. 18, 1911, the representatives of the companies made it clear that on their part this stipulation was understood and agreed to—that is, that the report of the valuation commission, while going into all the details mentioned, was not to be considered binding either on the city or the companies. This communication was signed by Henry A. Blair, representing the Chicago Railways; Ira M. Cobe, representing the Chicago City Railway, Southern Street Railroad and Calumet & South Chicago Railway, and Samuel Insull, representing the Chicago elevated railways.

The plan to combine all the elevated and surface railways of Chicago is intimately connected with the construction of the proposed subway. Very likely the subway will be built by the city and leased to the companies for operation, but no conclusion has been reached on the subject. The interests involved are very large and important, and it will be some time before a plan of settlement can be worked out in all its details.

**Morris-Joliet Extension of Chicago, Ottawa & Peoria Railway Opened.**—A trial run was made on Dec. 16, 1911, on the Joliet extension of the Chicago, Ottawa & Peoria Railway, between Morris and Joliet, 22 miles distant. The party consisted of officials of the company and the run was made from Morris to Joliet in order to test the track, clearance and running time. Two-hour local service was made effective Dec. 17, 1911.

**Suit to Forfeit Franchise in San Francisco.**—Attorney-General Webb of California brought suit in the Superior Court on Dec. 6, 1911, against the United Railroads, San Francisco, Cal., to forfeit its franchise covering the line from Market Street along California Street to Kearney Street. The suit is based on the ground that the line has not been operated since April 18, 1906. The court is asked to impose a fine of $5,000 for failure to operate under the franchise.

**Conference with Union Officers in Philadelphia.**—A conference between the officers of the Philadelphia (Pa.) Rapid Transit Company and officers of the Amalgamated Association of Street & Electric Railway Employees, for the discussion of matters relating to the status of the union, as a result of the vote on the co-operative wage plan and arbitration scheme, referred to in the Electric Railway Journal of Sept. 2, 1911, page 393, has been tentatively arranged for some time after the first of the year, at a date to be later determined.

**Roadbed Condition Prizes.**—The Ft. Wayne & Northern Indiana Traction Company, Ft. Wayne, Ind., has announced the names of the winners during 1911 of the cash prizes awarded by the company each year among its roadway section employees. For the best alignment of track, best level and surface, D. Welch, Rockfield, was awarded the first prize of $50; J. Beeks, Andrews, the second prize of $40, and J. Akers, Bucker, the third prize of $25. For the greatest improvement shown in track and roadbed during the year a premium of $50 was given to O. S. Henniger, Ft. Wayne.

**Report of the Ohio Public Service Commission.**—The Public Service Commission of Ohio reports that 80 miles of electric railway were built during the last year at a cost of $3,800,000. The dividends paid by all companies totaled $1,007,692, a decrease of $92,105 over 1910. Both receipts from operation and operating expenses increased. The increase in the number of employees was 802. The wages paid were slightly higher in 1911 than in 1910. The number of persons killed and injured in 1911 was 999, a decrease of 130 over 1910. Of the number killed twelve were passengers and eight employees.

**"Tangent."**—This is the title of a monthly magazine published by the Galveston-Houston Electric Railway, the Houston Electric Company and the Galveston Electric Company. Its principal purpose, as outlined in the introductory editorial by L. C. Bradley, vice-president, is to "build and boost" everything pertaining to the development of the Galveston-Houston district. The magazine contains illustrations of the Galveston-Houston Electric Railway, an account of the development of Galveston since the storm of 1900 and some views in League City. The front cover contains a bird's-eye view of the Galveston-Houston Electric Railway.

**Appropriation for Chicago's Subway Bureau.**—The finance committee of the Chicago City Council on Dec. 16, 1911, approved an appropriation of $2,202,200 requested by the subway bureau recently appointed by Mayor Harrison. Before $2,000,000 of this money can be expended the action of the finance committee must be confirmed by the City Council, and then opportunity will be afforded for a petition for a referendum vote at the April election, if 25 per cent of the voters of the city request the referendum. Of the sum approved by the finance committee $2,000,000 was specified to pay expenses of subway construction. The $202,200 provides for the salaries of three engineers at $12,000 a year each, for assistant engineers and clerks, and for office equipment and supplies. It is understood that the present appropriation will provide funds to make additional subway plans and designs which the Council will consider.

**Subway Report in Pittsburgh.**—The report of the committee on municipal affairs of the Chamber of Commerce of Pittsburgh, Pa., on the comparative merits of a high and low-level route for a tunnel to connect Pittsburgh and the South Hills country has been completed. Two reports are to be made, one relative to each route, but the recommendation will favor what is termed a "compromise elevation" of about 1035 ft. In addition, the recommendations will advocate two tubes, instead of one; that is, a tube for street railways and one for use of the general public. This plan is suggested both for "economy in construction and safety."

Finally, the committee will recommend that "a sufficient toll be paid to the county by the street railways for the use of the bridge and the tunnel to be set apart to help in maintenance and provide a sinking fund for the payment of bonds, issued by the county to cover the cost of construction." In addition to the tunnel report the chamber as a whole will consider the subway ordinance.

## PROGRAM OF ASSOCIATION MEETINGS

### New England Street Railway Club

The regular monthly meeting of the New England Street Railway Club will be held at the American House, Boston, on Thursday evening, Dec. 28, 1911. After the regular business meeting at 8 o'clock Frank M. Clarke, assistant to the superintendent of the Providence division of the New York, New Haven & Hartford Railroad, will present a paper, "The Development of the Steam Roads of New England and Their Relation to the Electric Railways." Dinner will be served at 6:30 o'cock.

### International Street & Interurban Railway Association

As announced last week, the convention of the International Street & Interurban Railway Association will be held this year at Christiania, Norway. This association meets every other year. The convention of 1910 was held in Brussels and that of 1908 in Milan. The 1912 convention will be the seventeenth in the history of the association. The date for the meeting has not yet been set. The following is a list of the papers or reports to be read at the meeting:

1. "Influence of New Methods of Urban Transportation on the Development of Large Cities and on Social Customs." Report to be presented by L. Dausset, municipal councilor and formerly president of the Municipal Council of Paris.

2. "Organization Problems in Connection with the Transportation of Large Crowds in Cities." Report to be presented by M. Hradetzky, superintendent of transportation of the Vienna municipal tramways.

3. "The Use of Independent Motor Cars on Steam Railway Lines and on Interurban Lines." Report to be presented by E. A. Ziffer, Edler von Teschenbruck, president of the Bukowina Railways, Vienna.

4. "Interpole Motors." Joint report to be presented by Messrs. Bacqueyrisse, chief engineer of tramway construction of the General Omnibus Company, Paris, and by some other author to be announced later.

5. "Electrolysis and Means Actually Employed for Preventing It." Speaker to be announced later.

6. "Overhead Trolley and Feeder Line Maintenance," by E. d'Hoop, technical manager Brussels Tramway Company, and Mr. Otto, chief engineer Grosse Berliner Strassenbahn.

7. "The Most Advantageous Location of Carhouses and the Organization of Carhouse Work." Report to be presented by J. H. Neiszen, manager of the municipal tramways of Amsterdam.

8. "Rail Corrugation." Report to be presented by A. Busse, chief engineer of the Grosse Berliner Strassenbahn, Berlin.

9. "Snow Removal." Report to be presented by Mr. Poppe, manager of the Christiania Tramways.

10. "The Relation Between Local Railways (Interurban Lines, Branch Lines, Light Railways, Suburban Railways and Even City Railways) and Trunk Lines as Regards Combined Service and the Interchange of Freight and Rolling Stock." Report to be presented by Mr. Campiglio, president of the Italian Street & Interurban Railway Association, Milan.

11. "Different Methods of Collecting Fares on Interurban Lines." Report to be presented by G. Lembourg, engineer to the general manager of the Société nationale des Chemins de fer vicinaux, Brussels.

12. "Recent Improvements in Heating and Lighting of Railway Cars; Advantages and Disadvantages of the Systems in Use," by F. de La Hoye, engineer of rolling stock and material of the Société nationale des Chemins de fer vicinaux, Brussels.

# Financial and Corporate

## New York Stock and Money Markets.

Dec. 20, 1911.

Rather decided curtailment has taken place this week in the volume of transactions on the New York exchange, and the movement of prices has been very uncertain. In the late trading yesterday some improvement was made in prices, and in to-day's market net changes were unimportant. Rates on the money market to-day were: Call, 3½@4 per cent; ninety days, 3¾@4 per cent.

### Other Markets

Chicago Railways issues were active in the Chicago market to-day, and gains were made in both series 1 and series 2. These issues have led the market this week. Trading in other offerings has not been heavy, but fair in volume.

Trading in Philadelphia during the week has been dull, though prices have been firm.

Georgia Railway & Electric declined over two points in yesterday's trading in Boston, and Massachusetts Electric preferred went up to 96 to-day. The general list was quiet, and transactions were in limited volume.

A gain of nearly two points in Augusta & Aiken Electric preferred was the only feature of the Baltimore market to-day.

Quotations of traction and manufacturing securities as compared with last week follow:

| | Dec. 12. | Dec. 19. |
|---|---|---|
| American Brake Shoe & Foundry (common) | a90 | a90¼ |
| American Brake Shoe & Foundry (preferred) | a131½ | a129¾ |
| American Cities Company (common) | a27 | a25 |
| American Cities Company (preferred) | a83 | a81 |
| American Light & Traction Company (common) | a295 | a295 |
| American Light & Traction Company (preferred) | a107 | a108 |
| American Railways Company | a45½ | a45¼ |
| Aurora, Elgin & Chicago Railroad (common) | a39¼ | a40¼ |
| Aurora, Elgin & Chicago Railroad (preferred) | a84 | a83¼ |
| Boston Elevated Railway | a130⅛ | a130¼ |
| Boston Suburban Electric Companies (common) | a15 | a14 |
| Boston Suburban Electric Companies (preferred) | a75 | a76 |
| Boston & Worcester Electric Companies (common) | *12 | *12 |
| Boston & Worcester Electric Companies (preferred) | a56 | a56 |
| Brooklyn Rapid Transit Company | a76¾ | a77½ |
| Capital Traction Company, Washington | a127½ | a124½ |
| Chicago City Railway | a180 | a180 |
| Chicago Elevated Railways (common) | a30½ | a31 |
| Chicago Elevated Railways (preferred) | a93½ | a92¼ |
| Chicago Railways, ptcptg., ctf. 1 | a96½ | a99 |
| Chicago Railways, ptcptg., ctf. 2 | a34¾ | a37¾ |
| Chicago Railways, ptcptg., ctf. 3 | a11½ | a11½ |
| Chicago Railways, ptcptg., ctf. 4 | a6¾ | a6½ |
| Cincinnati Street Railway | 130½ | 130½ |
| Cleveland Railway | a106 | a103⅞ |
| Cleveland, Southwestern & Columbus Ry. (common) | *4⅞ | *4⅞ |
| Cleveland, Southwestern & Columbus Ry. (preferred) | *33¾ | a33¾ |
| Columbus Railway & Light Company | a37½ | *37½ |
| Columbus Railway (common) | *83 | *83 |
| Columbus Railway (preferred) | *90 | *90 |
| Dayton Street Railway (common) | a25 | a25 |
| Dayton Street Railway (preferred) | a101 | a101 |
| Denver & Northwestern Railway | *145 | *145 |
| Detroit United Railway | 85 | *85 |
| General Electric Company | 154¼ | 155 |
| Georgia Railway & Electric Company (common) | a159 | a150 |
| Georgia Railway & Electric Company (preferred) | a91½ | a90½ |
| Interborough Metropolitan Company (common) | 15¼ | 15⅜ |
| Interborough Metropolitan Company (preferred) | 48 | 48¾ |
| International Traction Company, 4% notes, rcts. | 69½ | 69½ |
| Indiana Union Traction Company | 12 | 12 |
| Kansas City Railway & Light Company (common) | a20½ | *20½ |
| Kansas City Railway & Light Company (preferred) | 52 | *52 |
| Lake Shore Electric Railway (common) | 7 | *7 |
| Lake Shore Electric Railway (1st preferred) | 83 | *83 |
| Lake Shore Electric Railway (2d preferred) | *25 | *25 |
| Manhattan Railway | 136 | 134 |
| Massachusetts Electric Companies (common) | a21⅞ | a22⅞ |
| Massachusetts Electric Companies (preferred) | a94 | a96 |
| Metropolitan Street Railway, New York | *8 | *8 |
| Milwaukee Electric Railway & Light (preferred) | *105 | *105 |
| Norfolk Railway & Light Company | 26 | 26 |
| North American Company | a73½ | a73⅞ |
| Northern Ohio Light & Traction Company (common) | a57½ | *57½ |
| Northern Ohio Light & Traction Company (preferred) | 105 | a105 |
| Philadelphia Company, Pittsburgh (common) | 52½ | a52¼ |
| Philadelphia Company, Pittsburgh (preferred) | a43¾ | a43¾ |
| Philadelphia Rapid Transit Company | a23 | a23½ |
| Portland Railway, Light & Power Company | *99½ | *99½ |
| Public Service Corporation | a110 | a110 |
| Seattle Electric Company (common) | a106½ | a115 |
| Seattle Electric Company (preferred) | a101 | a101 |
| Third Avenue Railroad, New York | 7 | 57⅛ |
| Toledo Railway & Light Company | 5½ | a4 |
| Twin City Rapid Transit, Minneapolis (common) | a104 | a108 |
| United Ry. & Electric Company (Baltimore) | 18½ | 18½ |
| United Rys. Inv. Co. (common) | 32 | 32½ |
| United Rys. Inv. Co. (preferred) | 60 | 60 |
| Virginia Railway & Power Company (common) | a44 | a39½ |
| Virginia Railway & Power Company (preferred) | a82 | 82 |
| Washington Ry. & Electric Company (common) | a46¼ | a49½ |
| Washington Ry. & Electric Company (preferred) | a88 | a89 |
| West End Street Railway, Boston (common) | a88 | a87½ |
| West End Street Railway, Boston (preferred) | a103½ | a103½ |
| Westinghouse Elec. & Mfg. Co. | a66 | a68¾ |
| Westinghouse Elec. & Mfg. Co. (1st pref.) | a118 | a117½ |

aAsked. *Last sale.

## ANNUAL REPORT

### Massachusetts Electric Companies

A statement of earnings of the operating street railway and light companies controlled by the Massachusetts Electric Companies, covering the year ended June 30, 1911, is as follows:

| | | |
|---|---|---|
| Gross income | | $8,881,520 |
| Operating expenses | | 5,557,303 |
| Gross income, less operating expenses | | $3,324,217 |
| Interest, rentals and taxes | | 1,838,579 |
| Net income | | $1,485,638 |
| Dividends: | | |
| Common stock | $1,043,774 | |
| Preferred stock | 125,316 | |
| | | 1,169,090 |
| Surplus for the year | | $316,548 |
| Surplus, June 30, 1910 | | 216,706 |
| Total | | $533,254 |
| Credits: | | |
| Accumulated profit on sales of scrap | $33,549 | |
| Adjustment of accounts | 2,827 | |
| Total credits | | 36,376 |
| | | $569,630 |
| Debits: | | |
| Premium on bonds called for redemption | $2,796 | |
| Reconstruction | 173,001 | |
| Replacement | 159,112 | |
| Depreciation of Hyde Park Electric Light Company property | 7,000 | |
| Total debits | | 341,909 |
| Surplus, June 30, 1911 | | $227,721 |

A statement of profit and loss of the Massachusetts Electric Companies for the year ended Sept. 30, 1911, is as follows:

| | | |
|---|---|---|
| Dividends on stocks owned | $481,244 | |
| Interest on notes and bank balances | 162,084 | |
| Total income | | $643,328 |
| Expenses: | | |
| Salaries—general officers and executive committee | $12,875 | |
| Printing and stationery | 1,001 | |
| Legal and miscellaneous expenses | 6,133 | |
| Federal income tax | 158 | |
| Total expenses | | 20,167 |
| Net income for the year | | $623,161 |
| Interest on coupon notes | | 166,500 |
| Balance for the year | | $456,661 |
| Surplus, Sept. 30, 1910 | | 3,015,925 |
| | | $3,472,586 |
| Dividends: | | |
| Jan. 1, 1911—2 per cent | $411,148 | |
| July 1, 1911—2 per cent | 411,148 | |
| | | 822,296 |
| Surplus, Sept. 30, 1911 | | $2,650,290 |

Gordon Abbott, the president, says in his remarks to shareholders:

"It was pointed out in the annual report of last year that there would necessarily be a repetition in this year's annual report of three months' earnings of the operating companies, in consequence of a change in the law relating to the fiscal year for street railways. Last year's report included the earnings for July, August and September. This year's report contains those months again, and the year of the operating companies ends on June 30 instead of Sept. 30 as heretofore.

"The results of operation during the past year may fairly be considered satisfactory, in view of the unsettled condition of general business in the territory under consideration. Gross earnings increased $434,458, or 5.14 per cent, fixed charges increased $81,466, and net divisible income showed a gain of $12,248.

"Dividends on the common stocks of the Boston & Northern and Old Colony Street Railways were continued at the same rates as last year—that is, 5 per cent and 6 per cent respectively—but the change in the fiscal year has resulted in their paying one dividend instead of two into the treasury of the Massachusetts Electric Companies during the past fiscal year of those companies.

"No additional preferred shares of the operating companies were sold during the year, but 2919 shares of the common stock of the Old Colony Street Railway were issued and were bought at par by the Massachusetts Electric Companies. Bonds of the Boston & Northern amounting to $2,270,000 par value and bonds of the Old Colony amounting to $485,000 par value have been sold during the year and the proceeds used to pay off the floating debt of $500,000 not held by the Massachusetts Electric Companies and to pay for further work on improvements and additional facilities required by increasing business.

"During the year which ended on June 30 last $1,507,107 has been spent on the property, divided as follows: Track construction, $397,113; track reconstruction, $584,244; cars and electrical equipment, $104,380; overhead lines and feeders, $100,484; power stations, $23,723; land and buildings, $206,896; sundry equipment, $15,669; total, $1,432,509; changes in Hyde Park power station, $74,598; total, $1,597,107.

"During the year 9.694 miles of new track have been constructed, 32.569 miles reconstructed, and work on 2.081 miles of track reconstruction was in progress at the close of the year; 170.83 miles of overhead and 10.36 miles of underground feeder and transmission cable have been constructed, and also 10.78 miles of underground conduit.

"Four express cars, four work cars, four vacuum cleaning cars and thirteen snow plows have been equipped and put into service.

"Buildings for express terminals at Quincy and at Neponset have been completed.

"The reconstruction of the Hyde Park station—providing 600 kw of modern generating machinery with additional boiler capacity—has been completed, as well as all other work mentioned in the last annual report as being in progress.

"A 1200-kw generator for East Woburn and additional boilers for East Woburn, Salem, Lynn and Chelsea have been contracted for.

"In addition to the foregoing expenditures, the high level of maintenance heretofore established has been maintained, and your trustees are able, as a result of all this, to report once more that the physical condition of the property has continued to improve during the past year.

"Acting under authority granted in Chapter 323 of the acts of the Legislature of 1911, the Boston & Northern and Old Colony companies were consolidated as of July 1 last. On Aug. 8 the name of the consolidated company was changed to Bay State Street Railway Company.

"In last year's report your trustees called attention to the desirability of making some provision for the arrears of dividends on the preferred shares and pointed out that before any plan could be considered it would be necessary to be reasonably sure of sufficient net earnings to pay dividends on any securities that might be issued in liquidation of such arrears. It is the opinion of your trustees that the time has come when the probable future earnings justify the adoption of such a plan, and they now recommend the issue as of July 1 next of preferred shares to be offered at par to the present preferred shareholders in purchasing and paying for the arrears of dividends on the preferred shares, which now amount to $3,648,938. Under the provisions of the deed of trust this can be done if a sufficient number of shares will authorize it, and your trustees are of opinion that the interests of all persons concerned will be served thereby. The preferred shareholders are, of course, entitled to their accumulated dividends in cash, but only from net earnings and only when the financial condition of the trust will permit net earnings to be so appropriated. Thus they can realize their claims in cash only at some indefinite future time and without interest. To undertake to pay them in cash now or in the near future is impracticable because it would involve the creation of a floating debt which might seriously impair the credit and resources of the association. It is therefore for the interest of the preferred shareholders to accept shares now for their dividend arrears instead of waiting until they can receive cash. On the other hand, the issue of preferred shares for such arrears will be of advantage to the common shareholders, who can receive no dividends until the accumulations due the preferred shares have been liquidated.

"Your trustees, therefore, recommend that the powers given the shareholders by the trust instrument by way of amendment or otherwise be so exercised as to authorize the trustees to issue as of July 1 next $3,649,000 par value of additional preferred shares and to offer these at par in payment of the claims for arrears of dividends on the outstanding preferred shares. They believe that the adoption

of this method will better serve the interests of all shareholders than an attempt to liquidate these dividends in cash during the continuance of the trust. At its expiration all preferred shares, old and new, will be entitled to payment in cash at par.

"To issue preferred shares in payment of the accrued dividends amounts, therefore, to this: The preferred shareholders will receive next July a security on which they will be entitled to receive dividends until the termination of the trust, when they will be entitled to receive cash in full for their claims. Obviously, they will be better off by exactly the amount of the dividends they receive from next July until the time they would have received cash for their claims. The common shares will be better off by having the claims of the preferred shares out of the way, so that if the earnings should prove more than sufficient to provide for dividends on the preferred shares, they will be entitled to the benefit.

"In conclusion, the trustees desire to congratulate you on the improved condition of your property which has made the consideration of such a plan possible; they hope that it will commend itself to you."

## Georgia Railway & Power Company, Atlanta, Ga.

The State Railroad Commission of Georgia issued an order on Dec. 16, 1911, authorizing the Georgia Railway & Power Company to issue $17,000,000 capital stock and $30,000,000 of bonds. The company asked for authority to issue $27,000,000 capital stock and $30,000,000 bonds. In addition the commission provided that only $12,400,000 of the bonds could be issued immediately, and the remainder not until the company had reappeared before the commission and had submitted satisfactory evidence of development. The company asked the commission to approve the lease of the property of the Georgia Railway & Electric Company. The commission held that it was without authority in this matter. The Atlanta *Journal* says: "J. J. Spalding, Atlanta, one of the directors of the company, is not prepared to state whether or not the proposed plans will be carried out under this partial granting of the company's petition. None of the officers who could be reached was willing to talk, but there seems to be a strong probability that the developments contemplated will not be carried out." As previously stated in the ELECTRIC RAILWAY JOURNAL, the Georgia Railway & Power Company was incorporated to lease the property of the Georgia Railway & Electric Company and merge the Interstate Power Company, the Georgia Power Company, the South Carolina Power Company, the Savannah River Power Company, the Atlanta Hydroelectric Company and the Atlanta Water & Electric Power Company.

## Interborough Rapid Transit Company Authorized to Issue Bonds

The Public Service Commission of the First District of New York has issued an order granting the Interborough Rapid Transit Company permission to issue bonds to the amount of $12,755,000, face value, payable Nov. 1, 1952, to bear interest at 5 per cent, payable semi-annually, and to be secured by a mortgage on the property of the company aggregating $55,000,000, authorization for which was granted on April 23, 1908. The company applied for permission to issue bonds to the amount of $17,123,611.

The order of the commission authorizing the issue states that the bonds will be redeemable in accordance with the terms of the mortgage at 105 and accrued interest. The commission finds that the money to be procured by the proposed issue is reasonably required by the company for acquisition of property, or for the construction, completion, extension or improvement of its facilities, or for the discharge or lawful refunding of its obligations, or for reimbursement of moneys actually expended from income or from other moneys in the treasury of the corporation not secured by the issue of stocks, bonds, notes or other evidence of indebtedness. It is also found that the purposes for which the proceeds of the bond issue are to be used are not in whole or in part reasonably chargeable to operating expenses or to income.

The proposed issue is authorized only upon certain conditions. Among these is that bonds to the amount of $5,500,800, which have been already surrendered, shall be forthwith delivered to the Morton Trust Company, trustee, under the mortgage and by it be canceled in accordance with Section 5 of Article 2 of such mortgage. Among the other conditions which are imposed by the Public Service Commission are the following:

"That no bonds authorized hereunder shall be sold by the said Interborough Rapid Transit Company for less than par with interest accrued thereon, and that the proceeds thereof shall be applied only to the following purposes, that is to say:

| | |
|---|---|
| "(1) Toward discharging or refunding of previous issues, $4,584,000, and for construction, completion, extension or improvement of its facilities, $3,000,000 | $7,584,000 |
| "(2) To or toward discharge of indebtedness of Interborough Rapid Transit Company to the Rapid Transit Subway Construction Company for cost of construction of the Brooklyn-Manhattan Rapid Transit Railroad | 3,500,000 |
| "(3) For acquisition of property and for the construction, completion, extension or improvement of the company's facilities during the year beginning July 1, 1911 | 996,332 |
| "(4) Reserved in accordance made with the provisions of the mortgage to pay or discharge mortgages upon real property acquired or paid for with moneys to be repaid out of proceeds of the issue hereby authorized, said mortgage being in amounts and upon property described as follows, namely: (1) Property at Two Hundred and Eighteenth Street and Harlem River, $500,000; (2) South Vernon Park property, $174,600 | 674,600 |
| "Total | $12,754,932 |

"That the Interborough Rapid Transit Company shall increase the annual sinking fund payment provided for in Article 11 of the said mortgage and shall, as of Nov. 1, 1911, and on the first day of November of each and every year thereafter, pay to the trustee as and for such sinking fund an amount equal to 1 per cent of the total amount of the principal of bonds at the time of such payment outstanding secured by the said mortgage."

**Albany Southern Railroad, Hudson, N. Y.**—Richard Sutro, of Sutro Brothers & Company, New York, N. Y., has been elected a director of the Albany Southern Railroad to succeed Charles H. Werner.

**Boston & Worcester Electric Companies, Boston, Mass.**—The trustees of the Boston & Worcester Electric Companies have declared a dividend of $1 per share on the 33,936 4 per cent cumulative preferred shares, payable on Jan. 1, 1912, to holders of record on Dec. 23, 1910. This is the first distribution since January, 1910.

**Central Park, North & East River Railroad, New York, N. Y.**—The United States Circuit Court of Appeals has affirmed the decree of foreclosure and sale obtained by the Farmers' Loan & Trust Company, New York, N. Y., against the Central Park, North & East River Railroad, Morton Trust Company and others. The action was on a mortgage made by the Central Park, North & East River Railroad on Dec. 1, 1872, to the Farmers' Loan & Trust Company, to secure payment of bonds aggregating $12,000,000 and maturing Dec. 1, 1902. The Central Park, North & East River Railroad leased its property on Oct. 14, 1892, to the Metropolitan Street Railway.

**Chicago (Ill.) City Railway.**—In addition to the regular quarterly dividend of 2½ per cent, the directors of the Chicago Railway have declared an extra dividend of 1½ per cent, both payable on Dec. 30, 1911, to stockholders of record on Dec. 19, 1911. This is the only extra dividend this year. The ordinance before the City Council providing that the Chicago City Railway acquire the property of the Chicago & Southern Traction Company inside the city limits and carry passengers for a single fare was defeated by the Council on Dec. 18, 1911. The ordinance, with some

amendments which had been accepted, has been reintroduced and sent to the committee on local transportation, so that it may be reported again at the next meeting of the Council.

**Chicago (Ill.) Railways.**—Harris, Forbes & Company, New York, N. Y., and the National City Bank, New York, N. Y., are offering for subscription at 96½ and interest $6,000,000 of consolidated mortgage series "A" 5 per cent gold bonds of the Chicago Railways, due Feb. 1, 1927.

**Chicago & Milwaukee Electric Railroad, Chicago, Ill.**—John R. Thompson, owner of $1,034,000 of the first mortgage bonds of the Chicago & Milwaukee Electric Railroad, has filed two suits in the Superior Court at Chicago, one directed against a committee of bondholders and the Chicago Title & Trust Company, and the other against the National Trust Company, Ltd., of Canada. Mr. Thompson asks that the defendants be restrained from transferring, pledging or disposing of the bonds or using the same in any reorganization plan and urges the court to require the committee and the depositaries to return the bonds to him.

**Cleveland, Painesville & Eastern Railroad, Willoughby, Ohio.**—The Cleveland, Painesville & Eastern Railroad has petitioned the Public Service Commission for permission to issue $211,000 of forty-year 5 per cent bonds to pay for extensions and betterments.

**Forty-second Street, Manhattanville & St. Nicholas Avenue Railway, New York, N. Y.**—Judge Lacombe in the United States Circuit Court has signed an order adjourning the sale of the property of the Forty-second Street, Manhattanville & St. Nicholas Avenue Railway under foreclosure, which was set for Dec. 18, 1911, until Jan. 18, 1912.

**Kansas City Railway & Light Company, Kansas City, Mo.**—The Kansas City Railway & Light Company has called for payment $50,000 of first-mortgage 5 per cent bonds of the Corrigan Consolidated Street Railway dated 1886. The bonds will be redeemed on Jan. 1, 1912, at 110 at the office of the Central Trust Company, New York, N. Y., trustee.

**Kansas City Viaduct & Terminal Company, Kansas City, Mo.**—Ira G. Herrick, formerly president of the Kansas City Viaduct & Terminal Company and at present a director of the company, has been appointed temporary receiver of the company by Judge Walter A. Powell in the Independence division of the Jackson County Circuit Court. The application for a receiver was noted in the Electric Railway Journal of Dec. 16, 1911, page 1253.

**Keokuk (Ia.) Electric Company.**—This company, the incorporation of which was noted in the Electric Railway Journal of Dec. 16, 1911, was organized by Stone & Webster, Boston, Mass., and has taken over all the local utilities at Keokuk, including the Keokuk Gas & Electric Company, the Keokuk Electric Railway & Power Company and the Keokuk & Western Illinois Electric Company.

**Manila Electric Railroad & Light Company, Manila, P. I.**—The quarterly dividend of the Manila Electric Railroad & Light Company has been increased to 1½ per cent, or at the rate of 1 per cent per annum additional.

**Metropolitan Street Railway, New York, N. Y.**—It is reported in financial circles in New York that Theodore P. Shonts, president of the Interborough-Metropolitan Company and the Interborough Rapid Transit Company, will be elected president of the Metropolitan Street Railway following the sale of the property of that company under foreclosure.

**New York Central & Hudson River Railroad, New York, N. Y.**—Application for permission to acquire stock of the New York & Harlem Railroad has been filed with the Public Service Commission of the Second District of New York by the New York Central & Hudson River Railroad. The New York & Harlem Railroad owns a steam railroad running from Forty-second Street, New York, to Chatham, N. Y., a distance of 127.45 miles, with branch lines 9.03 miles long, and also owns a street railway in New York 10.22 miles in length. The capital stock issued and outstanding consists of 173,121 shares of common stock and 26,879 shares of preferred stock, each share of the par value of $50, none of which is owned by the New York Central & Hudson River Railroad. It has outstanding $12,000,000 of 3½ per cent mortgage bonds due May 1, 2000. In April, 1873, the railroad was leased to the New York Central & Hudson River Railroad for a term ending on April 1, 2274, at an annual rental of interest on bonded debt and 10 per cent on preferred and common stock. Its street railway line is leased to the Metropolitan Street Railway for 999 years at a rental of $400,000 a year.

**Salem (Ohio) Electric Railway.**—The operation of the Salem Electric Railway has been suspended because the road could not be made to pay. The company has about 2 miles of standard-gage track and six motor cars.

**Twenty-eighth & Twenty-ninth Streets Crosstown Railroad, New York, N. Y.**—Joseph P. Day has been instructed by Referee Newell Martin to dispose of the Twenty-eighth & Twenty-ninth Streets Crosstown Railroad at public auction on Jan. 4, 1912. The sale is the result of foreclosure proceedings brought by the Central Trust Company, New York, N. Y.

## Dividends Declared

American Cities Company, New York, N. Y., 3 per cent, preferred.

Boston & Worcester Electric Companies, Boston, Mass., $1, preferred.

Capital Traction Company, Washington, D. C., quarterly, 1½ per cent.

Chattanooga Railway & Light Company, quarterly, 1¼ per cent, preferred.

Columbus (Ga.) Electric Company, $3 preferred.

Frankford & Southwark Passenger Railway, Philadelphia, Pa., quarterly, $4.50.

Germantown Passenger Railway, Philadelphia, Pa., quarterly, $1.31¼.

Lake Shore Electric Railway, Cleveland, Ohio, quarterly, 1½ per cent, first preferred.

Memphis (Tenn.) Street Railway, quarterly, 1¼ per cent, preferred.

New York State Railways, Rochester, N. Y., quarterly, 1¼ per cent, preferred; quarterly, 1½ per cent, common.

Porto Rico Railways, Ltd., Ponce, P. R., quarterly, 1¾ per cent, preferred; quarterly, 1 per cent, common.

Stark Electric Railroad, Alliance, Ohio, quarterly, ¾ of 1 per cent.

Toronto (Ont.) Street Railway, quarterly, 2 per cent.

Union Passenger Railway, Philadelphia, Pa., $4.75.

United Traction & Electric Company, Providence, R. I., quarterly, 1¼ per cent.

West Philadelphia Passenger Railway, Philadelphia, Pa., $5.

## ELECTRIC RAILWAY MONTHLY EARNINGS

ATLANTIC SHORE RAILWAY.

| Period. | | | Gross Revenue. | Operating Expenses. | Net Revenue. | Fixed Charges. | Net. Income. |
|---|---|---|---|---|---|---|---|
| 1m., | Nov., | '11 | $21,363 | $20,428 | $936 | $582 | $354 |
| 1 " | " | '10 | 21,023 | 18,136 | 2,887 | 606 | 2,280 |

AURORA, ELGIN & CHICAGO RAILROAD.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Nov., | '11 | $140,050 | $82,652 | $57,199 | $36,788 | $20,411 |
| 1 " | " | '10 | 132,508 | 74,422 | 58,086 | 34,603 | 23,483 |
| 5 " | " | '11 | 839,767 | 437,033 | 402,734 | 182,515 | 220,219 |
| 5 " | " | '10 | 809,582 | 418,471 | 391,111 | 167,044 | 224,068 |

BROOKLYN RAPID TRANSIT.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Sept., | '11 | $2,027,273 | $1,254,764 | $772,509 | ..... | ..... |

CENTRAL PARK NORTH & EAST RIVER RAILROAD.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Sept., | '11 | $54,492 | $49,088 | $5,404 | ..... | ..... |

CONEY ISLAND & BROOKLYN RAILROAD.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Sept., | '11 | $115,427 | $87,566 | $27,860 | ..... | ..... |

HUDSON & MANHATTAN RAILROAD.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Sept., | '11 | $242,332 | $107,272 | $135,061 | ..... | ..... |

INTERBOROUGH RAPID TRANSIT COMPANY, NEW YORK.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Sept., | '11 | $2,373,478 | $1,209,590 | $1,163,888 | ..... | ..... |

METROPOLITAN STREET RAILWAY, NEW YORK.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Sept., | '11 | $1,183,291 | $795,924 | $387,367 | ..... | ..... |

NEW YORK & QUEENS COUNTY RAILWAY.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Sept., | '11 | $117,303 | $115,722 | $1,581 | ..... | ..... |

NORTH CAROLINA PUBLIC SERVICE COMPANY.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Oct., | '11 | $24,536 | *$14,502 | $10,034 | $5,500 | $4,534 |
| 1 " | " | '10 | 20,987 | *12,795 | 8,192 | 4,167 | 4,025 |
| 12 " | " | '11 | 247,753 | *149,623 | 98,130 | 59,333 | 38,797 |

THIRD AVENUE RAILROAD, NEW YORK.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1m., | Sept., | '11 | $315,410 | $157,709 | $157,701 | ..... | ..... |

*Includes taxes.

# Traffic and Transportation

## Collecting Increase in Fare on Hudson & Manhattan Railroad

The Hudson & Manhattan Railroad, New York, N. Y., has issued the following statement to the public in regard to the method which it will adopt on Dec. 24, 1911, for collecting the increase in fare on its line which was referred to in the ELECTRIC RAILWAY JOURNAL of Nov. 25, 1911, page 1113:

"Beginning at 12:01 a. m., Sunday, Dec. 24, 1911, the rate will be 7 cents instead of 5 cents for a ride from tube stations in Jersey City or Hoboken to any of the uptown New York tube stations (Christopher Street to Thirty-third Street inclusive) or vice versa.

"The rate will remain 5 cents between any tube stations in New Jersey, between the Hudson Terminal and any station in Jersey City or Hoboken, or vice versa, and between any tube stations on the uptown line in New York (Christopher Street to Thirty-third Street inclusive).

"(1) A passenger from New Jersey for uptown New York will deposit a 5-cent ticket in canceling box as he enters train platform in Jersey City or Hoboken. Upon arrival at uptown New York station passenger will buy a 2-cent supplementary ticket, which he will deposit in chopping box as he leaves the station.

"(2) From uptown New York stations (Thirty-third Street to Christopher Street inclusive) a passenger for tube stations in Jersey City or Hoboken will deposit a 5-cent and a 2-cent ticket in canceling box as he enters the station platform.

"(3) A northbound passenger starting from Christopher, Ninth, Fourteenth, Nineteenth, Twenty-third or Twenty-eighth Street for a Sixth Avenue station pays 5 cents as he enters train platform and receives an exit coupon. As he leaves any uptown station (Ninth Street to Thirty-third Street inclusive) he surrenders the exit coupon.

"(4) A southbound passenger from any Sixth Avenue station pays 7 cents as he enters train platform (see paragraph 2). If passenger does not ride beyond Christopher Street he will be handed a 2-cent refund coupon on the platform as he leaves the train, for which he will receive 2 cents if he hands the coupon to agent as he leaves the station.

"(5) A passenger from a tube station in Jersey City or Hoboken to another tube station in Jersey City or Hoboken will deposit a 5-cent ticket as he enters train platform (same arrangement as is now in effect).

"(6) A passenger from a tube station in Jersey City or Hoboken for downtown New York (Hudson Terminal), or from the Hudson Terminal for a tube station in Jersey City or Hoboken, will deposit a 5-cent ticket as he enters train platform (same arrangement as is now in effect).

"Until passengers become familiar with the new ticketing arrangements at uptown exits and entrances it is thought advisable to sell the 2-cent supplementary tickets only at uptown New York tube stations.

"The 2-cent coupons must be deposited in chopping boxes only at uptown New York stations, both entrance and exit."

## Co-operation of Public Requested in New York

In discussing the problem of handling traffic on the lines of the Interborough Rapid Transit Company, New York, N. Y., on Dec. 18, 1911, Theodore P. Shonts, president of the company, said:

"The Interborough Rapid Transit Company on its subway and elevated lines, at this season of the year especially, is carrying very large numbers of people, and it requires the greatest care on the part of all its employees to handle so many people with facility and in safety. As a matter of fact, there is more or less discomfort to the passengers during the rush hours morning and night because more people desire to be transported than the present subway or elevated system can comfortably accommodate. The company therefore requests the co-operation of all its passengers in helping the employees, so that we may run the greatest number of cars and trains and render the public the greatest possible convenience. In order that the public may have some idea as to the enormous business being conducted safely every day, the following figures are of interest: On Dec. 11 the elevated lines carried 1,019,166 passengers safely, and operated in excess of 194,000 car miles. On the same day, Dec. 11, the subway carried 1,090,382 passengers safely and operated in excess of 189,000 car miles. The figures for the subway before mentioned show an increase in passengers over the same Monday of 1910 of 80,611, and an increase over the same day of 1910 of 73,000 car miles. On Dec. 11 the subway carried more passengers than on any other day in its history except during the Hudson-Fulton celebration. For the first sixteen days of December the traffic on the elevated lines has increased more than 20,000 passengers per day, while for the same days the subway showed an increase over the previous year of 77,000 passengers per day."

**Action Postponed in Regard to Fare Inquiry in Los Angeles.**—The Council of Los Angeles, Cal., has deferred action until the new Council is seated, after Jan. 1, 1912, on the proposed ordinance to authorize the Board of Public Utilities to conduct an inquiry into the reasonableness of the 5-cent fare charged by the street railways which operate in Los Angeles.

**Extension of Express Territory on McKinley System.**—The Chicago, Ottawa & Peoria Railway, the northern division of the McKinley System in Illinois, is arranging with the Wells-Fargo Express Company to establish agencies along its line and handle both a local and general express business. This contract will be effective after Jan. 1, 1912, and will add about 125 miles to the territory of the Wells-Fargo Express Company in Illinois.

**Near-Side Stops in Jacksonville.**—At a meeting of the public service committee of the Council of Jacksonville, Fla., on Dec. 15, 1911, Hardy Croom, general manager of the Jacksonville (Fla.) Electric Company, stated that circulars announcing that the company proposed to stop its cars on the near side of the street had been printed and placed on all cars. He said that patrons would soon become accustomed to the change. The committee has approved the plan of the company and has requested the public to assist the company in making the new rule a success.

**Interurbans and Shippers in Indianapolis.**—"What the Interurbans Have to Offer the Shippers" and "What the Shippers Have to Offer the Interurbans" were subjects discussed at a recent joint meeting of members of the Traffic Club of the Indianapolis Trade Association and officials of the interurban railways which operate out of Indianapolis. The shippers stated that they were giving practically all of their local shipments to the interurban electric railways on account of their prompt and careful handling of goods. At the next meeting the subject "Claims" will be taken up.

**York Railway Numbers Suburban Stops.**—J. E. Wayne, superintendent of the York (Pa.) Railways, has adopted the plan of numbering the stopping places along the suburban lines to assist the conductors in their work. Every stop will be given a number. On the Wrightsville line there are fifty-six stops, on the York Haven line forty-six, on the Dallastown line sixty-seven, and on the Dover line twenty-six. No change has been made in the Hanover line, nor is it expected that there will be any change there. Signboards bearing the respective station numbers have already been put in place.

**Increase in Wages in Omaha and Council Bluffs.**—The increase of 1 cent an hour in the wages of the employees of the Omaha & Council Bluffs Street Railway, Omaha, Neb., referred to briefly in the ELECTRIC RAILWAY JOURNAL of Dec. 16, 1911, page 1258, was authorized by the board of directors on Nov. 29, 1911, on recommendation of the management. The increase is effective on Jan. 1, 1912. The new scale follows: First year, 23 cents an hour; second year, 24 cents an hour; third year, 25 cents an hour; fourth year, 26 cents an hour; fifth, sixth, seventh, eighth and ninth years, 27 cents an hour; thereafter, 28 cents an hour.

**Commutation Rates on the Galveston-Houston Electric Railway.**—L. C. Bradley, vice-president and general manager of the Galveston-Houston Electric Railway, which was placed in operation between Galveston and Houston,

Tex., on Dec. 5, 1911, has announced the establishment of commutation rates on the line. Mr. Bradley says: "Commutation rates will apply on thirty-two tickets between any two stations where the fare is 10 cents or more. These tickets will be sold for one-half the one-way fare, and are limited to twenty-one days after date of purchase. This means that the interurban patrons can purchase a book of sixteen round trips, each round trip costing only the regular one-way fare."

**Winter Folder of South Shore Route.**—The Chicago, Lake Shore & South Bend Railway, Michigan City, Ind., of which C. N. Wilcoxon is general manager and W. O. Woodward traffic manager, is distributing a vest-pocket size timetable printed on a single sheet 15½ in. x 10½ in. One side of the sheet is devoted to timetables and the other side to a map of the route, 7 in. x 4½ in., and illustrations showing a six-car train on a single-track section of the road and two two-car trains on a double-track section of the road. This high-speed, single-phase road operates a week-day schedule of twenty-four westbound and twenty-six eastbound trains, which connect at Pullman, Ill., with the suburban trains of the Illinois Central Railroad. The limited trains make the run of 76 miles between South Bend and Pullman in two hours and fifteen minutes.

**Plans of Savannah Company to Meet Service Order.**—The Savannah (Ga.) Electric Company has replied to the Railroad Commission of Georgia in regard to the recommendation of the commission noted in the Electric Railway Journal of Dec. 16, 1911, page 1259. The company says that heaters have been ordered for its suburban cars and will be installed as soon as they are received; that delays on the Liberty Street line are being reported; that engineers are investigating the feasibility of equipping double-truck cars with air brakes; that its light single-truck cars are beng rebuilt and made heavier as they go to the repair shops; that conductors have been cautioned to enforce as rigidly as possible the rule which requires passengers to be seated according to race, and that an order has been issued to its employees to call street names and station stops whenever it is possible to do so.

**Employees of Interborough Rapid Transit Company Rewarded.**—Every employee of the Interborough Rapid Transit Company, New York, N. Y., who has been in the service of the company continuously since Dec. 31, 1910, will receive a five-dollar gold piece for Christmas. The announcement of the company to this effect is concluded as follows: "The management desires to express its high appreciation of the efficient and faithful manner in which the employees of this company perform their work, individually and collectively. The unparalleled accomplishment in the transportation of passengers on the subway and elevated divisions is due very largely to the unanimous and earnest desire among all classes to improve the service and add to the comfort and convenience of passengers without other thought than the efficient performance of their duties, and this under the most trying circumstances."

**Increase in Wages on Public Service Railway.**—On Dec. 22, 1911, the Public Service Railway, Newark, N. J., announced an increase in the wages of its platform employees effective on Jan. 1, 1912. Hereafter new employees and those who have been working less than one year will recive 23 cents an hour; those employed more than one year and less than two years will receive 24 cents an hour, and all who have been employed by the company more than two years will receive 25 cents an hour. This is the third increase in wages for motormen and conductors made by the company within two years. In December, 1909, the first-year men were receiving 20 cents an hour. A continuous service of five years was necessary before this rate was raised to 22 cents, and not until after ten years had passed was the pay made 23 cents an hour under the old schedule. Beginning Jan. 1, 1912, the one-year men will get what used to be paid only to the ten-year veterans, and the maximum pay of 25 cents will be given to every platform man upon the completion of two instead of ten years' service.

**Reduction in Fare Denied by New Jersey Commission.**—The Board of Public Utility Commissioners of New Jersey has denied the petition of the South Englewood Improvement Association for a reduction of the fare on the Hudson River division of the Public Service Railway from 10 cents to 5 cents between the ferry at Edgewater and South Englewood. In dismissing the petition the board made the following significant reference to the general fare question: "While the immediate introduction of a radical departure from the present system is not before the board, we incline to believe that eventually the entire zone system, together with the flat 5-cent fare, will have to be replaced by a more rational and equitable system of charges. The rational system would seem to be a uniform basic charge alike for all passengers, plus a charge varying roughly with the length of the actual ride."

**New Transfers in Denver.**—In describing the new transfers which the Denver (Col.) City Tramway proposes to adopt in 1912 the *Tramway Bulletin* of Denver for December says: "They will be printed on the same paper as heretofore, the same width, but a trifle longer, which will afford a larger space for the indication of the day and month. The names of the lines will not have to be printed so closely together, which will make the indication of the line easier to punch and more readily discerned by the person receiving the transfer. The conditions under which they are issued and accepted will be printed in larger and clearer type, and the name of the line instead of being printed in red on top of the black type will be in clear, bold-faced type at the top of the transfer, making it much easier for patrons to read and understand the conditions governing the use of transfers. On account of the larger space, the transfer points on back of transfer will be given in larger and clearer type. It is expected that this larger transfer will not only materially assist in the elimination of mistakes, but also provide for ready issuance and acceptance, and it is believed that our many patrons will find them easier to read and understand than those which have been heretofore issued."

**Pennsylvania Commission Adjourns Until 1912.**—The State Railroad Commission of Pennsylvania has adjourned until Jan. 3, 1912, when the annual reports will be presented. Later in January hearings will be held concerning rates of fare on the Allegheny Valley Street Railway in Cheswick. On Jan. 22 the commission will meet in Philadelphia to hear a number of complaints regarding suburban passenger rates. The complaint filed by Frank R. Leib against the Valley Traction Company, which operates between Lemoyne and New Cumberland, concerning the ventilation of its cars and congestion of traffic has been sent by the commission to that company with the request that the employees be instructed to see that the cars are properly ventilated. The company was also requested to give the matter of overcrowding attention at once. In the matter of complaints about miners using regular cars on the Eastern Pennsylvania Railways, Pottsville, arrangements have been made to provide special cars and compartments for the miners. Three protests have been filed with the commission against the near-side cars in Philadelphia. It is contended that the steps of these cars are too high and that inconvenience is encountered in the aisles when the cars are crowded.

**Re-routing Suggested in Los Angeles.**—C. A. Henderson, assistant general manager of the Los Angeles (Cal.) Railway Corporation, has submitted to the Public Utilities Commission of Los Angeles a plan to re-route the lines of the company through the business section of the city. The plan is proposed to relieve the congestion in the shopping district except Main Street, where, according to the company, congested conditions cannot be corrected until the red, or broad-gage, cars are removed to another thoroughfare. The Utilities Commission has under consideration a plan to allow the red cars to use San Pedro Street. The transfer system will be extended and congested places, such as the Plaza, Temple Block, Second and Spring and Third and Main Streets, will be relieved greatly. The three lines of cars that now loop the Temple Block will be eliminated, and the eleven lines that now run along Spring Street between Second and Fourth Streets will be reduced to six. Mr. Henderson said: "I firmly believe that the proposed changes will relieve much of the congestion now prevalent during the rush hours morning and evening and that the public in general will be pleased and benefited by the greatly improved service on all the lines affected."

# Personal Mention

**Mr. P. Dineen** has succeeded Mr. J. Burke as roadmaster of the Pacific Coast Railway, with offices at San Luis Obispo, Cal.

**Mr. James S. Harlan** has been reappointed to the Interstate Commerce Commission by President Taft for a term of seven years.

**Mr. P. O. McCarthy** has succeeded Mr. B. A. Hoog as superintendent of the Ft. Smith Light & Traction Company, Ft. Smith, Ark.

**Mr. R. S. Godwin** has been appointed master mechanic of the Texarkana Gas & Electric Company, Texarkana, Ark., to succeed Mr. B. N. McCulley.

**Mr. F. E. Fitzpatrick** has been elected secretary and treasurer of the Nevada County Traction Company, Grass Valley, Cal., to succeed Mr. C. A. Grow.

**Mr. Jesse Yoakum** has succeeded Mr. Ralph L. Caldwell as superintendent and general freight and passenger agent of the Warren-Bisbee Railway, Warren, Ariz.

**Mr. Frank Farrel,** who was formerly employed at the power station of the Boston & Worcester Street Railway, South Framingham, Mass., has been appointed assistant to Mr. Francis L. O'Bryan, who has been appointed electrical engineer of the company.

**Mr. Frank R. Coates,** whose election as president and a director of the Toledo Railways & Light Company, Toledo, Ohio, was noted in the ELECTRIC RAILWAY JOURNAL of Dec. 9, 1911, assumed the office of president immediately after his election. One of his first important official acts was to place before the Council of Toledo a proposal on behalf of the company for a settlement of the franchise question. This proposal was published in the ELECTRIC RAILWAY JOURNAL of Dec. 16, 1911, page 1247. As previously stated in the ELECTRIC RAILWAY JOURNAL, Mr. Coates was graduated from Lehigh University in 1890 and took a post-graduate course in 1891. He then served successively the Baltimore & Ohio Railroad and the New York, New Haven & Hartford Railroad. He next engaged in engineering construction work, and then became connected with Stone & Webster, Boston, Mass. Since December, 1910, he has been vice-president of the Inter-Ocean Steel Company at Chicago. He is forty-two years old. Mr. Coates is a member of the American Railway Engineering Association, an associate member of the American Electric Railway Association and American Society of Civil Engineers, and a member of the Western Society of Engineers, New York Railroad Club, and Alumni Association of Lehigh University. He was welcomed to Toledo by a number of prominent business men with a dinner at the Commerce Club on the evening of Dec. 11, 1911. Albion E. Lang, whom Mr. Coates succeeded as president, sketched the record of the growth of Toledo in the time that he has been a resident of that city.

F. R. Coates

**Mr. Robert McIntyre** has been appointed superintendent and master mechanic of the Eureka Traction Company, Eureka Springs, Ark. Mr. McIntyre succeeds Mr. Charles B. Gaw as master mechanic. The position of superintendent is a new one with the company.

**Mr. Ernest H. Davis,** who has been secretary and treasurer of the Jersey Shore Electric Street Railway, Jersey Shore, Pa., and the Vallamont Traction Company, Williamsport, Pa., has been elected president of the companies to succeed J. Henry Cochran, deceased.

**Mr. Joseph W. Cochran, Jr.,** has been elected secretary and treasurer of the Jersey Shore Electric Street Railway, Jersey Shore, Pa., and the Vallamont Traction Company, Williamsport, Pa., to succeed Mr. Ernest H. Davis, who has been elected president of the companies.

**Mr. Francis L. O'Bryan** has been appointed electrical engineer of the Boston & Worcester Street Railway, South Framingham, Mass., to succeed Mr. M. V. Ayers, who resigned some time ago. Mr. O'Bryan was assistant to Mr. Ayers with the company for seven years. Prior to becoming connected with the Boston & Worcester Street Railway he served the Readsville Telephone Company, Readsville, N. C., which manufactures telephones and telephone switchboards. He was employed as electrician for three years with the Fries Manufacturing Company, Winston-Salem, N. C. Mr. O'Bryan was also employed at the Niagara Falls hydro-electric power station on construction and installation work for a period extending over more than two years.

F. L. O'Bryan

**Mr. George W. Phelps,** who has been vice-president of the Monterey & Del Monte Heights Railway, Seaside, Cal., has been elected president and general manager of the company. He succeeds Mr. H. R. O'Bryan as president of the company. The title of general manager is a new one with the company.

**Mr. R. D. Wynn** has resigned as general manager of the Waukegan, Rockford & Elgin Traction Company, Waukegan, Ill., but retains his office as vice-president and a director of the company. Mr. Wynn is general manager of construction of the South Bend & Logansport Traction Company, which is constructing a line between South Bend and Logansport, which are 70 miles apart.

**Mr. Robert Ridgway** has been appointed engineer of subway construction by the Public Service Commission of the First District of New York. Mr. Ridgway has been at work on the Catskill water system under the Board of Water Supply since 1905. For two years prior to that he served as an engineer under the old Rapid Transit Commission. He previously had charge of the work on the Jerome Park reservoir for the Aqueduct Commission of New York. Mr. Ridgway is president of the Municipal Engineers of the City of New York and is a member of the board of directors of the American Society of Civil Engineers.

**Mr. Harrison R. Fehr,** president and general manager of the Easton (Pa.) Transit Company, was elected president of the Pennsylvania Street Railway Association at the annual meeting of the association, which was held in Harrisburg on Dec. 8, 1911. Mr. Fehr was born near Nazareth, Pa., in 1863, and was educated at the Moravian parochial schools in that city. For three years he taught in the public schools in Pennsylvania. In the spring of 1883 Mr. Fehr accepted a position with the engineering corps of the Lehigh Valley Railroad and later became assistant engineer. In the fall of 1891 he was elected to the office of city engineer of Easton, Pa., and occupied this position for eight years. He next engaged in engineering construction work on electric railways and in general contracting. In May, 1904, he was appointed general manager of the Easton Transit Company, and the following year was elected president of the company in addition to general manager. Mr. Fehr is a member of the American Society of Civil Engineers.

H. R. Fehr

**Mr. F. B. Hottell,** who has been instructor of the school for motormen and conductors maintained by the Cincinnati (Ohio) Traction Company, has been appointed division superintendent of the company in charge of the Vine Street division to succeed Mr. Joseph Ostendorf, who has been appointed assistant general superintendent of the company.

**Mr. Joseph Ostendorf** has been appointed assistant general superintendent of the Cincinnati (Ohio) Traction Company to succeed J. P. Van Leuven, deceased. Mr. Ostendorf was formerly a division superintendent of the company in charge of the Vise Street division. He has been with the company twenty-eight years, serving twelve years as a conductor, twelve years as clerk and four years as division superintendent.

## OBITUARY

**Henry F. Lord,** treasurer of the Lord & Burnham Company, Irvington-on-the-Hudson, N. Y., is dead.

**Daniel C. Hemingray,** secretary and treasurer of the Hemingray Glass Company, Covington, Ky., is dead.

**F. E. Snow,** who was president of the Union Street Railway, Saginaw, Mich., previous to its consolidation with the Inter-Urban Railway in 1899 as the Saginaw Valley Traction Company, is dead. Mr. Snow was born in Bangor, Maine, in 1847. During his early career he was connected with the Great Western, Wabash and Canada Southern railroads. He was also connected with the Hamtramck & Grosse Pointe Railway and the Highland Park Railway, Detroit, Mich., which were taken over in 1891 by the Detroit Citizens' Street Railway, of which the late Tom L. Johnson was president.

**J. F. Shanley,** of the J. F. Shanley Company, Newark, N. J., died at his home in Newark on Dec. 18, 1911. Mr. Shanley was born in Newark in June, 1855. He was educated at Fordham College, New York, and at Seton Hall College, South Orange, N. J. He entered the contracting firm of M. Shanley & Sons with his father and brother, the late B. M. Shanley, who at the time of his death in March, 1900, was president of the Consolidated Traction Company of New Jersey. Following the death of the elder Shanley, the firm was changed to B. M. & J. F. Shanley, with B. M. Shanley in charge of the finances and J. F. Shanley in charge of the engineering forces. J. F. Shanley became interested with his brother in the Consolidated Traction Company of New Jersey and the North Jersey Street Railway, but unlike his brother he did not serve actively as an officer of any of the companies. At the time of his death J. F. Shanley was a director of the Public Service Corporation of New Jersey and the Public Service Railway.

**Hugh J. McGowan,** president of the Indianapolis Traction & Terminal Company, Indianapolis, Ind., and president of the Terre Haute, Indianapolis & Eastern Traction Company, Indianapolis, Ind., died at his home in that city on Dec. 19. For some time past Mr. McGowan had not been well and had not devoted himself actively to the affairs of the companies with which he was connected. During 1908 and 1909 he spent fourteen months in Europe. Mr. McGowan was fifty-one years old. He was born in Missouri and left the farm on which he was reared when he was eighteen years old to go to work in Kansas City. During his early career he was in turn a laborer, a stableman, a mule car driver, a coachman, a section hand, a furniture packer and a policeman, and until he was thirty years old he had never earned more than $100 a month. He began his street railway career when he left the employ of the Wabash Railroad to accept a position with the Corrigan Consolidated Street Railway, Kansas City, under Mr. Bernard Corrigan, who was later president of the Kansas City Railway & Light Company. Mr. McGowan subsequently studied at a business college in Kansas City, and when twenty-two years old he became a car accountant for the Missouri Pacific Railroad. He was next appointed to the Kansas City police force and soon afterward he became acting captain of police. He was nominated for marshal of the county by the Democratic party and held that office for two terms. When General Francis V. Greene, then head of the Barber Asphalt Paving Company, went to Kansas City from New York to find an agent to take control of the company's business in Kansas City Mr. McGowan's name was brought to his notice, and in 1890 Mr. McGowan was appointed to represent the Barber Asphalt Paving Company. In 1893 Mr. McGowan was appointed commissioner from Missouri to the World's Fair. Subsequently Mr. McGowan's territory with the Barber Asphalt Company was extended and he was made Western agent with headquarters in Chicago. Among the stockholders of the Barber Asphalt Company were members of the Elkins-Widener Syndicate, Philadelphia, and interests connected with the United Gas Improvement Company, Philadelphia. Mr. McGowan was placed by them in control of the Kansas City Gas Company, and in 1895 a consolidation was effected of the Kansas City Gas Company and the Missouri Gas Company. The same interests later placed the destinies of the Citizens' Street Railway, Indianapolis, in the hands of Mr. McGowan, and as a result of his work in Indianapolis he was made general manager of the entire street railway system there. Soon afterward he was elected president of the Kansas City-Missouri Gas Company. In 1900 he was elected director of the Telephone, Telegraph & Cable Company of America and at that time was the only Western director of the company. In February, 1901, he was elected president of the Cincinnati Traction Company and for several years was chairman of the executive committee of the company. Besides being president of the Indianapolis Traction & Terminal Company and the Terre Haute, Indianapolis & Eastern Traction Company, Mr. McGowan was, at the time of his death, vice-president of the Ft. Wayne & Northern Indiana Traction Company and president of the Indianapolis & Martinsville Rapid Transit Company.

## Policy of Pennsylvania Railroad with Regard to News of Accidents

The Pennsylvania Railroad has sent to the newspapers in the territory it traverses a notice relative to its method of making public details of accidents. The first edition of this notice was sent to newspapers in May, 1909. The company says: "It is the policy of the Pennsylvania Railroad system to give to the public, through the newspapers, prompt and accurate information concerning any accidents which may occur on its lines." Continuing, the notice calls attention to the impracticability of miscellaneous employees giving out information. After stating that "whenever an accident happens a statement giving all essential facts will be made public by the company," the notice says:

"They [miscellaneous employees] have specific duties to perform in caring for the passengers and in reopening the line to traffic. As their duties are concerned only with certain features of the situation, they are not in a position to know the full facts. They are required, however, to report to their superior officers all the facts which may come under their immediate observation. All the information is then assembled and reported to the company immediately and by the company made public.

"The management of this company realizes that upon occasions of accident it is of the greatest importance that the number and names of any who may be injured should be made known immediately. This is all the more urgent as a means of relieving the anxiety of the families and friends of passengers who may be on the train. The railroad company is, of course, in the best position to obtain this information, and the newspapers may be assured that the company will make public such information as it can obtain, freely and fully."

As to giving the causes of accidents, the company says:

"It should be understood that there are many phases of accidents, especially regarding their causes, the facts of which cannot be ascertained even by the railroad until after considerable investigation and inquiry. The company will, however, give prompt publicity to all known facts."

The last paragraph of the notice follows:

"The support of the newspapers is necessary in order to secure accuracy in the published reports of accidents. The end to be achieved is so eminently desirable, from the points of view of the public, the press and the company, that it is believed that the papers may be relied upon to instruct their representatives to co-operate with the railroad in seeing to it that facts only are printed."

# Construction News

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

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

## RECENT INCORPORATIONS

***Twin Falls, Artesian City & Oakley Interurban Railway, Twin Falls, Idaho.**—Incorporated in Idaho to build an interurban railway in Twin Falls and adjoining counties. Capital stock, $180,000. Henry T. West, Twin Falls, president.

***Grandview Railroad, St. Louis, Mo.**—Chartered in Missouri to build a 19-mile electric railway from the city limits of St. Louis to a cement mill in St. Louis County. Capital stock, $200,000. Frederick Herbert, St. Louis, is interested.

***Goldsboro, Seven Springs & Swansboro Railroad, Goldsboro, N. C.**—Incorporated in North Carolina to build a 70-mile interurban railway between Goldsboro and Swansboro. Incorporators, R. C. Griffin and William A. Robertson.

***Terminal Railway, Marshfield, Ore.**—Incorporated in Oregon to build an electric railway from Taylors and Siglin's Landing, via Marshfield, North Bend and Empire City, to Sunset Bay. Capital stock, $200,000. Officers: Arno Moreen, president; L. J. Simpson, vice-president; J. W. Bennett, treasurer; J. H. Flanagan, secretary; W. S. Chandler, general manager, and P. A. Sandberg, chief engineer.

***Skagit Valley Railroad, Olympic, Wash.**—Application for a charter has been made in Washington by this company to build a monorail railroad from La Conner to Sedro-Woolley, in Skagit County. Capital stock, $500,000. Incorporators: W. D. Cody, J. C. Foster and W. E. Borland.

**Steer Creek Railroad, Wire Bridge, W. Va.**—Incorporated in West Virginia to build an interurban railway from Wire Bridge in Braxton County to Grantsville, Calhoun County. Capital stock, $10,000. Incorporators: Cecil Gross, Elkins; G. W. Vanhorn, Wire Bridge; E. Bryan Templeman, Charles E. Peddicord and Osman E. Swartz, Clarksburg.

## FRANCHISES

**Edmonton, Alta.**—The Edmonton Radial Railway will ask the City Council for franchises to build several extensions north of the river and two important extensions on the south side; also to connect Whyte Avenue with Jasper, via Fifth Street west and the high level bridge in Edmonton.

**Phoenix, Ariz.**—The Salt River Valley Electric Railway has received a franchise from the Common Council in Phoenix.

**Los Angeles, Cal.**—The Pacific Electric Railway, Los Angeles, has received the approval of the Board of Public Utilities to electrify the old Santa Monica steam road and it will ask the Council for a franchise.

**Berwyn, Ill.**—The County Traction Company, Chicago, has received a franchise from the City Council in Berwyn. The company has also obtained a similar franchise in Cicero.

**Indianapolis, Ind.**—The Indianapolis Traction & Terminal Company will ask the Board of Public Works for an extension of time of its franchise in which to complete the East Michigan Street line extension from Tacoma Avenue to Emerson Avenue in Indianapolis.

***Louisville, Ky.**—The General Council has been asked to grant a franchise to construct a cross-town line in Louisville, extending from the eastern to the western limits of the city.

**Mandeville, La.**—W. J. Tracy, Cleveland, Ohio, has received a franchise from the City Council in Mandeville. This is part of a plan to build an electric railway between Slidell, Houstonville, Mandeville and Baton Rouge. [E. R. J., Dec. 1, 11.]

**Minneapolis, Minn.**—The Twin City Rapid Transit Company will ask the Board of Aldermen for a franchise on Eleventh Street in Minneapolis.

**Elizabeth, N. J.**—The Public Service Railway, Newark, has received a franchise from the City Council to lay tracks to connect the South Broad Street line with the terminus of the Trenton short line in Elizabeth.

**Cleveland, Ohio.**—The North Randall Railway has asked permission of the Cuyahoga County Commissioners to build its line across Lee Road, Warrensville Center Road and Miles Avenue.

**Corpus Christi, Tex.**—The Corpus Christi Street & Interurban Railway has received a franchise to extend its lines in Corpus Christi.

***Corpus Christi, Tex.**—W. E. Pope will ask the City Council for a franchise in Corpus Christi on behalf of a syndicate formed in Minneapolis. About 14 miles of track will be built.

**Richmond, Va.**—The Virginia Railway & Power Company has received a franchise from the City Council to extend its lines on Halifax Street and on South Sycamore Street in Richmond.

**Weston, W. Va.**—The Clarksburg & Weston Electric Railway, Clarksburg, has received a franchise from the City Council in Weston.

**Milwaukee, Wis.**—The Milwaukee Light, Heat & Traction Company has asked the City Council for a thirty-year franchise to build four extensions in Milwaukee.

## TRACK AND ROADWAY

**Birmingham & Edgewood Electric Railway, Birmingham, Ala.**—This company will soon build 2 miles of new track for which it will need 80-lb. rails.

**Argenta (Ark.) Railway.**—Plans are being made by this company to construct an extension of the Main Street line in Argenta north from its present terminus to Twenty-second Street and thence west to the Ft. Smith branch of the Iron Mountain Railroad.

**San Joaquin Light & Power Company, Fresno, Cal.**—The Stone & Webster Engineering Corporation, Boston, Mass., is constructing for this company a railroad from Friant to the site of the company's proposed power development at Big Creek. The cost of construction is estimated at $1,000,000. J. M. Thebo is in charge for Stone & Webster as chief engineer.

**Pacific Electric Railway, Los Angeles, Cal.**—This company placed in operation on Dec. 16 its 10.9-mile railway between Hollywood and Van Nuys. The company has begun the construction of a 50-mile line from the terminal of the Southern Pacific Company at Pollaskyk, 12 miles from Fresno, to within a short distance of the summit of the Sierra Nevada Mountains. This line is to extend to the Big Creek site of the San Joaquin Light & Power Company, where large hydroelectric construction is being carried on.

**Marysville-Colusa Railway, San Francisco, Cal.**—This company has filed a deed of trust to the Mercantile Trust Company, San Francisco, to secure a bonded indebtedness of $1,000,000. It is reported that the contract for grading will be awarded soon. The proposed line will connect Marysville, Meridan, Sutter City and Colusa. Samuel Lilienthal, San Francisco, is interested. [E. R. J., Dec. 1, '11.]

**Stockton Terminal & Eastern Railroad, Stockton, Cal.**—Work has been begun by this company on the Miner Avenue extension of its line in Stockton.

***Sunnyvale, Cal.**—Plans are being considered by the Chamber of Commerce of Sunnyvale to construct an electric railway from Sunnyvale to San Francisco. The plan also includes a steamship and ferry line between Port Sunnyvale and San Francisco.

**Vallejo & Northern Railway, Vallejo, Cal.**—This company has awarded a contract to Guy McMurty, Yuba City, for the construction of 3 miles of the roadbed of the Woodland-Sacramento branch just outside of Sacramento on the Yolo side of the Sacramento River.

**Jacksonville (Fla.) Electric Company.**—This company will double track its Riverside line on St. Johns Avenue in Jacksonville. The extension of the Hogan Street line to Enterprise Street is contemplated.

**Springfield & Northwestern Railway, Springfield, Ill.**—The directors at a recent meeting of the Springfield Commercial Association indorsed the construction of an electric railway to connect Mason City, Petersburg, Athens and Greenview. Ralph N. Baker, Springfield, president. [E. R. J., Oct. 7, '11.]

**Evansville & Southern Indiana Traction Company, Evansville, Ind.**—Plans are being made by this company to construct a line on Bell Street from Eighth Street to Kentucky Avenue in Evansville.

**Terre Haute, Indianapolis & Eastern Traction Company, Indianapolis, Ind.**—It is reported that this company plans to build an extension between Milton and Connersville.

**Vincennes, Washington & Eastern Traction Company, Vincennes, Ind.**—It is reported that this company has secured the necessary capital and that construction will soon be begun on its projected 33-mile electric railway between Vincennes, Washington and Loogootee. [E. R. J., Oct. 21, '11.]

**Iowa City, Ottumwa & Southwestern Electric Railway, Iowa City, Ia.**—It is reported that this company has secured the necessary capital to begin the construction in the spring on its 70-mile railway to connect Iowa City, Ottumwa, Sharon Center and Keota. Frank Tanner, Iowa City, general manager. [E. R. J., Jan. 14, '11.]

**Keokuk (Ia.) Electric Company.**—The Keokuk Electric Company, the incorporation of which was noted in the Electric Railway Journal of Dec. 16, 1911, was organized by Stone & Webster, Boston, Mass., and has taken over all the local utilities at Keokuk, including the Keokuk Gas & Electric Company, the Keokuk Electric Railway & Power Company and the Keokuk & Western Illinois Electric Company.

**Southwestern Traction & Power Company, New Orleans, La.**—This company has awarded the contract to build its line from Berwick via Jeanerette and New Iberia to Lafayette, a distance of about 60 miles, to the Chapman Construction Company.

**Aroostook Valley Railroad, Presque Isle, Me.**—This company has placed in operation its 11¾-mile extension to New Sweden.

**Springfield (Mass.) Street Railway.**—This company has completed its extension from the Ludlow bridge into Ludlow.

***Manistee, Mich.**—Plans are being made to organize a company to build an electric railway from Muskegon to Manistee via Fremont, Hesperion and Ludington. Herman O'Connor, Holton, is chairman of the organizing committee.

**Missoula (Mont.) Street Railway.**—Surveys are being made by this company for a line from Missoula to Polson and from Kalispell to Polson across the Flathead Indian Reservation.

**Yonkers (N. Y.) Railroad.**—This company plans to double track its Mount Vernon line. It has recently extended its Nepperhan Avenue line north from Lake Avenue to Nepera Park and plans an amusement resort in Nepera Park or along McLean Avenue, east of Jerome Avenue.

**Goldsboro (N. C.) Traction Company.**—This company has filed a mortgage with the Mercantile Trust & Deposit Company, Baltimore, Md., to secure the issue of $100,000 of the company's first mortgage bonds for improvements and extensions. The company expects to extend its railway to Seven Springs provided the people along the line will furnish right-of-way.

***Lorain, Ohio.**—The Boards of Commerce of Lorain, Amherst and Oberlin are considering plans to build an electric railway to connect Lorain, Amherst and Oberlin.

***Youngstown, Ohio.**—John Ruhlman, Youngstown, and associates plan to build an electric railway from Conneaut to Youngstown. It is expected to begin work in the spring.

**Oklahoma & Northwestern Railway, Oklahoma City, Okla.**—This company has completed the final survey for its 74-mile electric railway from Woodward to Watonga. E. A. Wagener, Oklahoma City, president. [E. R. J., Oct. 7, '11.]

**Berlin & Waterloo Street Railway, Berlin, Ont.**—During the next eight weeks this company will award contracts to build ½ mile of new track and two switches in Berlin.

**Lehigh Valley Transit Company, Allentown, Pa.**—This company has placed in operation its new cut-off through Perkasie to Sellersville.

**Bloomsburg, Millville & Northern Railway, Bloomsburg, Pa.**—During the next few weeks this company will place contracts to build several bridges, lay 9 miles of track and equip its line ready for operation.

**Irwin-Herminie Traction Company, Herminie, Pa.**—Plans are being made by this company to build an extension in Irwin.

***Hagerstown, State Line, Greencastle & Mercersburg Railway, Middlesburg, Pa.**—This company has been formed to build an electric railway to connect Hagerstown, Mercersburg, Middleburg and Greencastle. Surveys have been begun, right-of-way is being secured and considerable work has been begun on the line from Hagerstown in the direction of Maugansville.

***Beaver, Koppel & New Castle Railway, New Castle, Pa.**—The Beaver & New Castle Street Railway, with a capital of $54,000; the Beaver, Koppel & New Castle Railway, with a capital of $2,400, and the New Castle Connecting Railway, capital $3,000, have consolidated under the name of the Beaver, Koppel & New Castle Railway, with a capital of $59,400. The officers are: C. E. Glenn, president, Evans City; W. A. Ghoering, vice-president, Zelienople, and H. S. Glenn, secretary and treasurer, Oakmont.

**Phoenixville, Valley Forge & Strafford Street Railway, Phoenixville, Pa.**—This company will build to Gay Street and Strafford Street in Phoenixville next spring.

**West Penn Railways, Pittsburgh, Pa.**—This company plans to build extensions in Washington County and a line in Greene County, from Waynesburg to Masontown in Fayette County.

**York (Pa.) Railways.**—Plans are being made by this company to eliminate the grade crossings on the York and Hanover line at Graybill station, where an overhead bridge will be erected.

**Spartanburg Railway, Gas & Electric Company, Spartanburg, S. C.**—Surveys are being made by this company for an extension in Spartanburg.

**Chattanooga, Rome & Atlanta Railway, Chattanooga, Tenn.**—As soon as this company secures the necessary franchises it will secure right-of-way and begin construction of its 135-mile electric railway to connect Chattanooga, Tenn., and Atlanta, Ga., and other towns in Georgia. The company has recently organized and elected the following officers: Charles Reif, president; M. O'Grady, first vice-president; John H. Hill, second vice-president; W. Divine, secretary; S. A. Hunt, treasurer; John H. Hill, general manager. [E. R. J., Dec. 16, '11.]

**Texas Traction Company, Dallas, Tex.**—This company will build an extension over Gray's Hill in Sherman.

**Oregon & Southern Railway, Seattle, Wash.**—This company has secured franchises and right-of-way and made surveys for its 155-mile electric railway to connect Sama Valley, Gold Ray, Rock Point, Ruch, Talent, Medford, Jacksonville, Grant's Pass, Port Orchard, Wash., and Ashland, Ore. It is planned to issue bonds in a sum not exceeding $10,000,000 for the construction and equipment of the railway. J. Arnold Doyle, Medford, president. [E. R. J., Nov. 18, '11.]

**Seattle (Wash.) Electric Company.**—Plans are being considered by this company to double track its Alki Point line in Seattle.

***Bluefield, W. Va.**—B. M. Cohen and associates plan to build an electric railway between Bluefield and Princeton. It is said that financial backing has been secured.

**Parkersburg & Ohio Valley Electric Railway, Parkersburg, W. Va.**—It is reported that this company will build an extension to North Parkersburg in the near future if a free right-of-way is furnished by the citizens.

**Pan Handle Traction Company, Wheeling, W. Va.**—This company has placed in operation its double-track line between Glennova and Gilchrist Park. It is the intention of this company to continue the double tracking of this line to Wheeling.

## SHOPS AND BUILDINGS

**Ft. Wayne & Northern Indiana Traction Company, Ft. Wayne, Ind.**—Preliminary plans are in progress by this company for the construction of a new terminal station on

Main, Pearl and Ewing Streets in Ft. Wayne. The structure will be two stories high and of brick construction.

**Tri-City Railway, Davenport, Ia.**—Plans are being considered by this company to construct a new carhouse on Fifth Avenue, Rock Island, in the spring. The structure will be of steel and reinforced-concrete construction. The first floor will be used for the storage of cars and as the repair shop of the company. The second floor will be used as a storage room.

**Louisville (Ky.) Railway.**—This company will soon build a new carhouse in Louis ille. The structure will be one-story and will cost about $5,400.

**Maysville (Ky.) Street Railway.**—This company has nearly completed its new carhouse and yards in Maysville.

**United Traction Company, Albany, N. Y.**—This company will build stations at the intersection of certain streets in Albany.

**Syracuse, Lake Shore & Northern Railroad, Syracuse, N. Y.**—Plans are being made by this company to build a new carhouse in Oswego about 100 ft. north of the substation at Ellen Street. The structure will be about 150 ft. x 150 ft., and of concrete construction.

**Muskogee (Okla.) Electric Traction Company.**—Work will be begun at once by this company on a new carhouse in Muskogee. The structure will be of steel construction and will have eight tracks. The cost will be about $45,000.

**Berlin & Waterloo Street Railway, Berlin, Ont.**—During the next two months this company will award contracts to build a new addition to its carhouse in Berlin. The structure will be 40 ft. x 80 ft.

**Altoona & Logan Valley Electric Railway, Altoona, Pa.**—Extensive improvements are being planned by this company at its plant at Fifth Avenue and Thirty-second Street in Altoona. They will include the construction of a large addition to the carhouse, paint shop, machine shop and the installation of new machinery for repair work. The addition will be 260 ft. x 70 ft. and of brick construction. It will have a capacity for 40 cars. The paint shop will be one-story, 150 ft. x 70 ft., and of brick construction.

**Conestoga Traction Company, Lancaster, Pa.**—It is reported that this company has bought the building in Centre Square, Lancaster, formerly used by this company for its ticket office and waiting room.

**Phoenixville, Valley Forge & Stratford Street Railway, Phoenixville, Pa.**—This company will build a new carhouse, repair shop and siding at Williams' Corner in West Chester.

**Yazoo & Mississippi Valley Railroad, Memphis, Tenn.**—It is reported that this company will double the capacity of its freight depot in Baton Rouge.

**Puget Sound Electric Railway, Tacoma, Wash.**—This company has completed its new depot in Puyallup. The structure is triangular in shape, the dimensions being 85 ft. x 70 ft. x 50 ft. [E. R. J., Oct. 28, '11.]

### POWER HOUSES AND SUBSTATIONS

**Ft. Wayne & Springfield Railway Company, Decatur, Ind.**—This company is preparing plans and specifications for the construction of a new power house in Decatur.

**St. Joseph Valley Traction Company, Elkhart, Ind.**—It is reported that this company will soon build three dams in the St. Joseph River with the object of substituting electricity for gasoline motor cars.

**Calais (Me.) Street Railway.**—This company has bought the water-power site formerly occupied by the lumber mill of James Murchie's Sons & Company.

**Tri-State Railway & Electric Company, East Liverpool, Ohio.**—This company will make arrangements for extensive improvements to the main power plant and substations along the line. The capacity of its plants will be doubled at East Liverpool and Steubenville.

**Southeastern Ohio Railway, Light & Power Company, Zanesville, Ohio.**—Plans are being made by this company for the installation of a new turbine at its power plant in Zanesville.

**Central Pennsylvania Traction Company, Harrisburg, Pa.**—This company has installed a 1600-kw direct-connected engine and generator at its power plant in Harrisburg.

# Manufactures & Supplies

### ROLLING STOCK

**Georgia Railway & Electric Company, Atlanta, Ga.,** has ordered fifty-four Brill 39-E trucks from The J. G. Brill Company.

**Wheeling (W. Va.) Traction Company** expects to be in the market next month for nineteen double-truck cars for 1912 delivery.

**Wellsburg, Bethany & Washington Railroad, Wellsburg, W. Va.,** expects to purchase a passenger car, probably of the combination type.

**San Diego (Cal.) Electric Railway** has ordered twenty-four 43-ft. center-entrance pay-as-you-enter cars from the St. Louis Car Company.

**Nashville Railway & Light Company, Nashville, Tenn.,** has ordered thirty-two Brill 21-E trucks and two Brill 27-GE-1 trucks from The J. G. Brill Company.

**Beaumont (Tex.) Traction Company** has ordered three 23-ft. 1-in. semi-convertible prepayment car bodies mounted on Brill 39-E trucks from the American Car Company.

**Wilmington & Philadelphia Traction Company, Wilmington, Del.,** has ordered one 26-ft. semi-convertible motor car body mounted on Brill 39-E trucks without wheels and axles from The J. G. Brill Company.

**Phoenixville, Valley Forge & Strafford Street Railway,** Phoenixville, Pa., has ordered two fifteen-bench center-aisle open motor car bodies mounted on Brill 39-E trucks from The J. G. Brill Company.

**Nashville-Gallatin Interurban Railway, Nashville, Tenn.,** is in the market for a second-hand steam hoist of about 3 tons capacity mounted on trucks for use in track laying. The boom is to be of sufficient length to handle rails. The company will also purchase a small grab bucket to be used for unloading gravel.

### TRADE NOTES

**Baldwin Locomotive Works, Philadelphia, Pa.,** will build a branch plant in Chicago as soon as plans can be prepared and a site for the plant secured.

**General Electric Company, Schenectady, N. Y.,** has ordered seven 70-ft. gas-electric motor car bodies from the Wason Manufacturing Company for the St. Louis & San Francisco Railroad.

**S. K. F. Ball Bearing Company, New York, N. Y.,** has opened an office at 1505 Heisen Building, Chicago, Ill., to facilitate the handling of Western business. The office will be in charge of C. A. Winn.

**P. H. Ridgeway, Seattle, Wash.,** who was formerly associated with the Electrical Engineering Company, of Seattle, has opened offices as consulting and constructing engineer in the Central Building, Seattle.

**Pyrene Fire Extinguisher Company, New York, N. Y.,** announces that Harry W. Frister, who was formerly associated with Rogers, Brown & Company, New York, has become connected with the firm.

**Carborundum Company, Niagara Falls, N. Y.,** has been awarded the grand prize for the exhibit of abrasive materials at the Turin Exposition, Turin, Italy, which was held from April 15 to Oct. 31 of this year.

**Kerr Turbine Company, Wellsville, N. Y.,** has appointed the following new agents: Walter L. Flower, 312 South Eighth Street, St. Louis, Mo., and C. E. Grevemberg, 1023 Maison Blanche Building, New Orleans, La.

**Manning, Maxwell & Moore, New York, N. Y.,** have appointed William H. McIntyre first vice-president and general manager, a newly created position. Mr. McIntyre retains his position as president of the San Antonio & Aransas Pass Railroad.

**C. W. Rhoades** has resigned as special sales agent for the St. Louis Surfacer & Paint Company, St. Louis, Mo., and has taken an executive position with the Polar Bearing Company, which has just been organized in St. Louis for the manufacture of railway car bearings.

**Johnson Fare Box Company, New York, N. Y.,** has received orders from the United Railroads, San Francisco,

Cal., for fifteen additional Johnson registering fare boxes and from the Omaha & Council Bluffs Street Railway, Omaha, Neb., for 170 additional equipments.

**J. C. Ward**, resident director and general manager of the Edgar-Allen American Manganese Steel Company, Ltd., Chicago, Ill., has just returned from a trip around the world taking about nine months, in the course of which he visited all of the agencies of the company.

**The J. G. Brill Company, Philadelphia, Pa.**, has received export orders from M. E. Curwen, London, England, for one 21-ft. 4-in. semi-convertible steel underframe car body mounted on a Brill 21-E truck, and from Dick, Kerr & Company, London, for ten Brill 27-GE-2 trucks without wheels and axles. The J. G. Brill Company has also received an order from F. E. Huntress, New York, N. Y., for thirty-five Brill 21-E trucks, including axles but without wheels.

**Henry Vogt Machine Company, Louisville, Ky.**, has erected a 300-hp water-tube boiler for the Delta Electric Light, Power & Manufacturing Company, Greenville, Miss., this boiler being the fourth ordered by this company. Other recent installations made by the Henry Vogt Machine Company include two 250-hp water-tube boilers for the Fayetteville Electric Light & Power Company, Fayetteville, Ark.; one 200-hp water-tube boiler for the Rome Railway & Light Company, Rome, Ga.; one 200-hp boiler for the Stanford Water & Light Company, Stanford, Ky., and a 260-hp unit for the Capital Gas & Electric Company, Frankfort, Ky.

**Platt Iron Works Company, Dayton, Ohio**, denies positively that there is any intention of shutting down that plant. On Aug. 5 receivers were appointed and on Nov. 20 trustees were elected at a meeting of a majority of the creditors. These trustees are now in charge of the property, with full authority to conduct and carry on the business, which has been in existence for a period of over thirty years. At the present time the quantity of work on hand requires upward of 750 employees. The organization, including the engineering, sales and mechanical departments, remains intact, and the trustees state that the property is and has been operated on a profitable basis.

**Allis-Chalmers Company, Milwaukee, Wis.**, is proceeding with its reorganization. A committee has been formed for the protection of the interests of the common stockholders consisting of Alexander J. Hemphill, chairman, Frederick Strauss, J. Horace Harding and Albert H. Wiggin. Stockholders will be requested to deposit their stock with the Guaranty Trust Company of New York as depositary. At the request of holders of a large amount of the preferred stock a committee to look after the interests of the preferred shareholders also has been formed, consisting of Charles Allis, chairman, Gates W. McGarrah, W. Emlen Roosevelt, M. N. Buckner and Herman W. Falk. The New York Trust Company, New York, N. Y., has been named as depositary.

**H. W. Johns-Manville Company, New York, N. Y.**, plans to move from its present plant at the foot of Thirty-ninth Street, Brooklyn, N. Y., and establish a general Eastern factory to meet all the requirements for its products in this part of the country with room for expansion, the present site having been condemned by the city authorities for sites for municipal ferries. The company is considering a tract of 290 acres at Finderne, N. J., which is about half way between Bound Brook and Somerville, N. J., on the Central Railroad of New Jersey. The number of buildings has not yet been decided upon, but each will be 150 ft. wide and 1000 ft. in length and they will be 150 ft. apart. They will be one-story, of saw-tooth construction, and either of tile and asbestos stucco or brick, with steel framing throughout. A 10,000-kw power plant will be installed by the company in the new factory. The number of employees of the new plant will be between 2500 and 3500. It will take about two years to construct the new plant. Work is progressing rapidly on the new office building for the H. W. Johns-Manville Company at the southwest corner of Madison Avenue and Forty-first Street, New York, which is to be used as an executive office by the company, and the company hopes to occupy the building shortly after the beginning of the new year.

## ADVERTISING LITERATURE

**Electric Service Supplies Company, Philadelphia, Pa.**, is mailing a circular which calls attention to the company's snow-fighting material, consisting of snow-sweeper rattan and track brooms.

**W. N. Matthews & Brother, St. Louis, Mo.**, have issued a circular which is descriptive of their guy anchors. Two other circulars issued by the company describe their OK sleet cutter and the new No. 567 wrench.

**Joseph T. Ryerson & Son, Chicago, Ill.**, have issued a 16-page catalog which describes and illustrates the various sizes of Rockford heavy-duty, variable-speed and motor-drive planers manufactured by the company.

**Railway Supply & Curtain Company, Chicago, Ill.**, has issued a 66-page catalog which describes and illustrates the various types and styles of railway coach specialties and curtains which the company manufactures.

**H. W. Johns-Manville Company, New York, N. Y.**, is mailing a folder in which J-M corrugated asbestos roofing is described and illustrated. Another folder issued by the company is descriptive of Keystone hair insulation.

**Hess-Bright Manufacturing Company, Philadelphia, Pa.**, has published a folder prepared by Herbert L. Towle, entitled "The Requirements of a Ball-Bearing Grease." Attention is called at the end of the folder to the company's ball-bearing grease.

**William S. Turner, Portland, Ore.**, consulting engineer, has printed a booklet which shows a list of engineering work carried out under his supervision as engineer for various electric railways, light and power companies and industrial plants in all parts of the country.

**Boonton Rubber Company, Boonton, N. J.**, has issued a booklet which illustrates and describes a Bakelite insulator with an iron pin molded in. This insulator was photographed after four years' service on an 11,000-volt transmission line in Pennsylvania and the surface of the material is said to be as good as the day it was installed.

**S. K. F. Ball Bearing Company, New York, N. Y.**, has issued a bulletin entitled "S K F Radial Bearings," which explains the construction peculiarities, particularly the provision for self-alignment, of S K F radial bearings, and gives dimensions, speeds and capacities of the principal types and sizes.

**Trolley Supply Company, Canton, Ohio**, has issued a 48-page catalog which describes and illustrates the company's products. Among these are the Knutson trolley retrievers Nos. 2 and 5, Ideal trolley catcher, Peerless roller-bearing trolley base, Star trolley base, Peerless check valve, Peerless Junior headlight and the semaphore incandescent headlight.

**H. B. Camp Company, New York, N. Y.**, has issued a 42-page catalog entitled "Conduits" which contains complete data relative to underground construction and its cost. An account of vitrified salt-glazed conduit and a set of specifications for users of conduits are presented. The publication also contains numerous illustrations showing installations of the company's product in various parts of the country.

**Locomotive Equipment Company, Detroit, Mich.**, has published catalog No. J-1, in which it describes the Newcomb journal box, which it manufactures. This box is designed to fit M. C. B. standard pedestals and arch bars and to use the standard bearings and wedge, also the same packing and oil, but differs from the journal boxes now in general use in the cover, dust guard and manner of controlling the lateral motion or slide of the car on its bearings. The front end of the box is made round and the cover screws in. The dust guard is designed to be changed or the center renewed without removing the truck from under the car or without using a jack. In addition to a description of the journal box, the publication contains a record of performances of the device covering 57,681 miles on the Spokane, Portland & Seattle Railway and a record of performances on engine No. 1844 of the Chicago, Burlington & Quincy Railroad. An interesting feature of the catalog to the electric railways is the sectional view of the Newcomb journal box No. 3 for the Aurora, Elgin & Chicago third-rail line.