

Electric Railway Journal

Consolidation of Street Railway Journal and Electric Railway Review

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Can Injunctions Alone Crush Competition?

A VISITOR to a neighboring jitney-infested city can study an entirely new aspect of the car versus jitney bus problem. One of the dizzily numerous ordinances, commission orders, injunctions, etc., apparently forbids the jitney buses from making a direct collection of fare from the passenger. But has this phased (or is it faded?) the busmen any? Apparently not. Booths and salesrooms in stores have been established at convenient places where for the modest fee of 25 cents one becomes a full member of the Lively City Bus Association. Full membership covers the right to buy strip tickets at 5 cents per ticket, which is legal tender for fare. But the process may be short-circuited in this way: If the guileless stranger on offering cash is spurned by the law-observing driver, there is nothing to prevent one of the club members in the bus from courteously offering to sell a ticket to the outsider and thus preserve the driver from the temptation of accepting cash.

"What a farce," many a reader will say, and rightly. But, surely, a little reflection will show that the farce would be short-lived if there were not in the community a sufficient number of people determined to patronize the jitney bus service at all hazards. It is possible for the courts to issue all sorts of injunctions, but the long drawn out struggle with jitneys even in Seattle, where the street railway is clearly not being run for profit, proves that the self-propelled vehicle must have certain intrinsic advantages which appeal so much to the public that it will not willingly relinquish this form of transportation despite the shabby shape in which it has usually appeared to date. Should the day come when the motor buses are maintained at street railway standards by reliable operators many of the present objections urged will lose caste with that influential part of the public that today will not ride in the disreputable looking jitney at any price. Consequently, it seems worth while to reiterate the advice that the electric railway in making the motor-bus a part of its transport system must go the jitney busmen one better by using vehicles and giving service that will be so obviously superior to the privateering sort that the public will no longer go out of its way to help in the circumvention of orders of regulatory bodies.

N. E. L. A. Is Using the Movies

LAST year, in the issue of Sept. 25, the ELECTRIC RAILWAY JOURNAL suggested to the electric railways that they take advantage of the extraordinary educational power of motion pictures as a means of furthering the effort to win public understanding and good will. It was also suggested that the national association of the industry could well undertake the preparation of a film for the broad use of the member

companies. Following this original suggestion, a great deal of other matter was published on the same subject, giving the views of a number of railway men on the high worth of the idea in general and on the details of its execution. There seemed to be a great deal of interest in the proposal.

Since then several companies have had a film made as an individual proposition, but for various reasons the American Association has been unable to undertake this new phase of publicity work in a definite way. Meantime, the National Electric Light Association has taken up this method of expanding its publicity work and has completed a very interesting short film, which was first shown at the June convention in Chicago and is now being distributed to the central station companies for general use. It is certainly to be hoped that this very effective means of reaching the public will receive full consideration in connection with the contemplated publicity campaign of the Committee of One Hundred.

Creditor Asks for Receivership for I. R. T.

THE application of a creditor of the Interborough Rapid Transit Company for the appointment of a receiver for that company was not unexpected. For the past two years the officers of the company have frankly declared that an increase in revenue per passenger was necessary for the solvency of the company. The immediate cause for financial embarrassment is the fact that the company has \$38,000,000 of notes coming due Sept. 1. If these should be extended by the holders it may be that with the falling prices of materials, lower wages, and possibly other future savings, together with possible future relief to be granted by the New York Transit Commission, a receivership can be avoided. During the next few weeks, possibly the next few days, the matter will be decided, as Judge Mayer, before whom the proceedings have been brought, has asked the company to show cause on Sept. 1 why a receiver should not be appointed.

In the meantime, a variety of explanations have been put forth from different sources both as regards the reasons for the application for a receiver and those which have brought about the present unfortunate financial condition of the company, which four years ago was paying dividends of 20 per cent annually, and which as late as 1918 distributed 17½ per cent in dividends to its stockholders. Certain prominent city officials see in the application "another attempt through the federal courts to raise carfares in this city to 8 and possibly 10 cents." A candidate for Mayor who is strongly demanding the retention of a 5-cent fare declares a receivership unnecessary if the property should be operated by a man of the type of Mr. Mitten of Philadelphia, while a New Jersey financial company which has had previous litigation with the Interborough considers the actual deficiency much more than that set

forth in the annual reports. No official statement had been made by the company or by the Transit Commission up to Aug. 31, except that Mr. McAneny, chairman of the commission, said its plans for reorganization of the transportation situation in New York would not be affected to any appreciable extent whether the company remained under the control of its corporate officers or was taken over by a receiver. In an interesting address delivered Aug. 30 in Cincinnati, however, Mr. Harkness, a member of the commission, in discussing transit tendencies in New York, outlined as some of the causes for the present situation the drifting policy adopted by the local authorities in regard to the question of fare and the attitude of the company with its present franchise of "demanding something and conceding nothing."

Whether the application for a receiver will be granted or not, the situation undoubtedly now has been brought to a crisis. An important and fortunate feature in the case is the legislation last spring by which far-reaching authority to grant transit relief was given to a commission, which has since been appointed. While no report has yet been made by the commission, its members in the past have a high reputation for good judgment, and it is to be hoped they will find a solution for the exceedingly tangled transit situation in New York.

It is certainly anomalous that an enterprise should experience a growing loss with an increasing gross business, yet should apparently be so helpless to make a change. It is also anomalous that in a city covering so large an area and so dependent for its prosperity upon good transportation as New York practically every local railway company is in financial straits, with none in notably prosperous condition.

Passengers per Car-Mile Not a Sure Service Index

THE expression "revenue passengers per car-mile" or "total passengers per car-mile," while the most convenient single term available as an index of traffic is likely to be most misleading if taken at its face value, especially if comparison is being made between different railways and even successive operating periods of the same railway. The less-used figure of "seats per passenger carried" is also subject to the same danger of misinterpretation. To prove this statement, a few illustrations will be presented.

First, assume that a comparison is made that Road A averaged nine passengers per car-mile in 1920 and that Road B averaged but six passengers per car-mile. It does not follow at all that Road A had more crowded cars. It may have been operating forty-eight-seat cars at five-minute intervals, while Road B may have been running thirty-two-seat cars at two and one-half or three-minute intervals. Thus Road B may prove to have carried the greater number of people if the comparison is made on the basis of "passengers per mile of route operated."

Second, density of traffic and standard of service are entirely different things, but confused if regard is taken only of the "passengers per car-mile" statistics. Suppose that through the inauguration of off-peak fares, short-ride fares, unlimited-ride passes or other means, there occurs a heavy increase in non-rush hour travel. This would be reflected by an increase

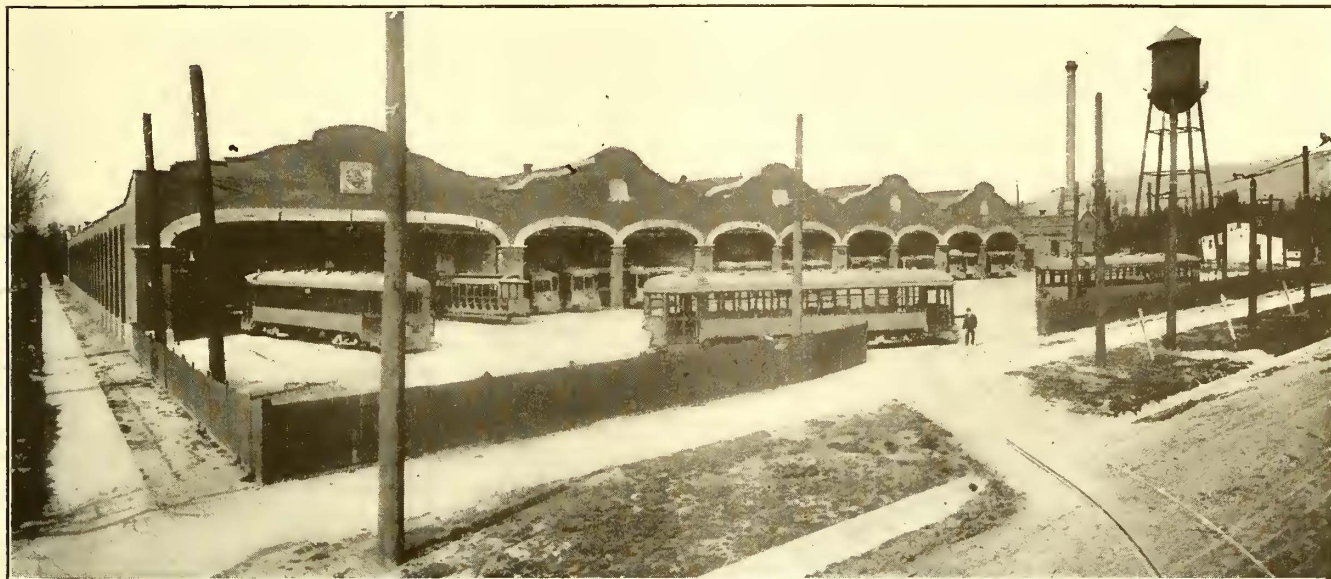
in the unit of comparison "passengers per car-mile"—by, say, 20 per cent; but it would be wrong to suppose that there had been any lowering of the standard of service. The reason for this conclusion is the fact that practically every electric railway averages one and one-half to two seats per passenger carried when taken on its all-day operating basis, whereas it may not do better than 0.75 seat per passenger carried during the rush hours. Any increased travel during the off-peak hours therefore comes at a time when there are more seats than passengers. Hence, an increase in the average or all-time "passengers per car-mile" figures does not mean that the public is getting less service than before. In cases of this kind it means just the opposite, namely, that the public is making better use of the railway's facilities than before. Contrariwise, an increase in seats or car-miles per passenger carried might be coincident with poorer service, as when a severe fare increase cuts traffic 20 per cent while the daily car mileage is cut but say 10 per cent.

Perhaps the most conspicuous recent example of this is in the 5-cent suburban rides of the Boston Elevated Railway. Most of this short-haul travel flows counter to the heavier long-haul tidal traffic carried at 10 cents. It is conceivable that one, two, three or more passengers per car-mile could be added to the figures of straight 10-cent travel, and yet the 10-cent riders would have practically as much accommodation as before. That is why an 80 per cent increase in the local, short-haul traffic of the Everett-Malden district can be absorbed so readily. An example on a smaller scale is that of Racine, Wis., where the users of the unlimited-ride dollar-a-week passes are found to average nearly four rides a business day. This means, of course, that one pair of rides is taken during the off-peak hours, thus raising the density of traffic without lowering the standard of service or adding unprofitable mileage.

In between Boston and Racine, there is San Diego's zone fare. The fact that the first quarter of 1921 shows a 14 per cent increase in the 5-cent or short-haul riders over the first three months of the zone fare (January-March, 1920) indicates that the retention of this rate for more than one-third of the patrons has a tendency to stimulate short rides during the off-peak hours. Most of these additional short rides would not come unless the service was good, because this class of traffic will walk if headway and seating are unsatisfactory. A 10½ per cent increase in the sale of two-zone 7½-cent tickets at San Diego also indicates that the plan of selling four tickets at a time, as against 10 cents cash, induces a growing proportion of the two-zone riders to take luncheon rides if they are not too far away from their work, or else to be more liberal in other non-compulsory riding. At any rate, the fact that San Diego for this first quarter of 1921 shows about 24 per cent increase in passengers per car-mile and 1.43 as against 1.94 seats per passenger in the same quarter of 1920 is far more likely to be proof of the better use of the plant for the permanent good of the customer than proof of an arbitrary cut in service for the temporary good of the company. In this case, both patron and operator benefit, whereas an inexperienced reading of the "passenger per car-mile" and "seat per passenger" figures would lead to caviling rather than praise of the managements involved.

Utah Light & Traction Optimistic

Wartime Conditions Are Improved and the Labor Situation Is Satisfactory—The Public Co-operates to Remove Paving Burden—Unique Publicity Methods Are Employed in Utah—The Company Has a Splendid Carhouse and Self-Contained Repair Department



CARHOUSE OF UTAH LIGHT & TRACTION COMPANY

THE Utah Light & Traction Company operates in Salt Lake City under a franchise which expires in 1955. In keeping with its environment, the company is optimistic and is devoting its efforts toward a speedy consummation of its financial and transportation ideals. Like the story of other railway properties, the war brought on a series of wage increases, followed by fare increases, until the present schedule of a 7-cent cash fare or sixteen tickets for a dollar was instituted. The peak of the financial difficulties seems to have been reached in that a wage reduction has been agreed upon recently. The money thus saved has been utilized to care for deferred track maintenance.

Salt Lake City has a population of about 120,000 and is a miracle city when its history and location are considered. The optimism and hard work of the pioneers have transformed a desert into a rich agricultural district, with the city as its metropolis. Today the parks, broad streets and imposing business blocks of Salt Lake City compare favorably with those of any other American city. The railway's property in the city was completely rehabilitated during 1907, 1908 and 1909 by the Harriman interests, so that now it is modern in every respect. The company's tracks thoroughly cover the city and extend into all the important suburbs and suburban towns, serving a population of approximately 141,000 people with a mileage of single track of 146 and total passengers carried during the year 1920 of 40,500,000.

The Utah Power & Light Company owns the \$1,000,000 capital stock (entire issue) of the Utah Light & Traction Company and leases and operates for ninety-nine years from Jan. 1, 1915, all the electric power, light and gas properties of the Utah Light & Traction Company.

Some of the power properties owned by the Utah

Light & Traction Company and now operated by the Utah Power & Light Company are:

Pioneer hydroplant.....	6,500 kw.
Weber hydroplant.....	2,500 kw.
Granite hydroplant.....	1,500 kw.
Stairs hydroplant.....	1,800 kw.
Jordan steam plant.....	16,000 kw.

The railway company has car tracks on 66 miles of 72 total miles of paved streets in Salt Lake City. These paved streets are from 72 to 132 ft. wide and the company has been required to pave and maintain a street width of 21 ft. 8 in. on all its double-track installations. This paving investment requires about $\frac{1}{3}$ cent per revenue passenger to care for interest, depreciation and maintenance and places a heavy financial burden on the railway. Prospects are encouraging for legislative relief, but in the meantime the railway is using every possible expedient to extend service without increasing the investment in paved streets.

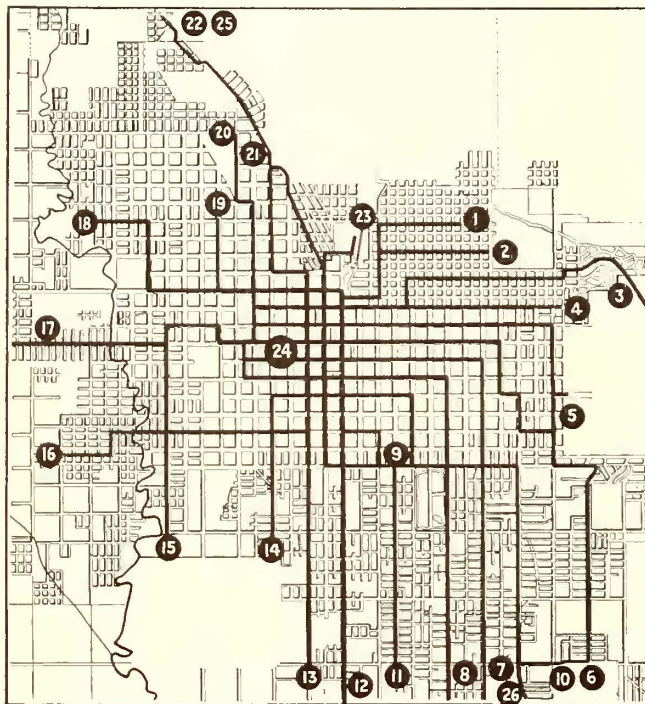
A beginning was made in 1920 to establish elevated center parkways, 44 ft. wide and 6 in. high, on certain of the streets to carry the double tracks of the railway. This parkway has a 6-in. curb and is grass covered excepting at street intersections. Due to the dry climate irrigation is necessary to maintain the grass and an underground pipe is placed in the parkways to afford water, furnished by the city, from sprinklers arranged at convenient intervals. The artistic effect of the installation is very good and the reaction on public sentiment has been splendid. It affords, in effect, a private right-of-way to the railway, reduces accidents, permits cheaper construction in that standard 72 lb. rails are used, reduces maintenance and at the same time is acceptable to the public since the street is 72 ft. wide and ample space remains for other traffic.

Another installation utilizes the fact that one of the city parks parallels the street for quite a distance. The

company has installed its tracks in the park on a grass parkway near the street in such a manner as to give it the equivalent of a private right-of-way without detracting from the beauty of the park. The results of these methods of installation are encouraging and combined with the favorable legislative attitude and the good will of the public will probably result in the ultimate solution of the paving situation.

ROUTES AND SCHEDULES

The city has a level downtown district and an out-lying hilly district with heavy grades. It is unique in that the city blocks are 10-acre plots as adopted by the early Mormon settlers and measure 792 ft. from street center to street center. The railway feeders are placed underground in the business districts and the trolley support is of span construction using steel poles



MAP OF SALT LAKE CITY SHOWING STREET CAR ROUTES
Key numbers show patrons the route to take to a desired destination.

with ornamental cast-iron bases. The transportation system is based on twenty-six routes each of which traverses both the level downtown section and the heavy grades of the Wasatch foothills. Each of the 172 passenger cars displays its route number on its dash and a complete schedule and map of the route is published and distributed by the railway. This little publication is in the form of a pamphlet about 5 in. long by 3 in. wide containing forty pages of material.

This booklet describes the routes by streets, and indicates the scheduled leaving time of cars from the end of the line and the time cars leave downtown. It contains also sectional plats of Salt Lake City with each of the routes indicated thereon. The routes are numbered from 1 to 26 inclusive and the booklet is so arranged that the route number covering any portion of the city may readily be obtained by turning to the large scale city plat in the center of the booklet. After the reader finds the route number from this complete plat, it is easy from page 1, which carries an index of all routes, to find the pages which give a sectional plat to large scale accompanied by a description of where

any particular route starts and finishes, including a complete time schedule for inbound and outbound cars at several locations. The booklet also takes advantage of Salt Lake City's attractions to point out different points of interest to tourists with directions for reaching them.

Salt Lake City, due to its wide streets, permits good schedules and offers but little opportunity for traffic congestion. On several of the main intersections in the downtown districts a traffic officer is stationed in a tower near the curb and controls the traffic by means of a four-way red and white signal lamp suspended at the center of the street intersection. In this district safety aisles are maintained by the use of portable pedestals connected by chains. Iron pipe is cast in cone-shaped concrete bases and several such pedestals are connected together depending upon the traffic demands.

The cars are very attractive modern type of pay-as-you-enter design and operate with fare boxes. They are painted a buff and yellow and are washed frequently in order to maintain them in an attractive condition despite the action of smelter fumes or other detrimental atmospheric effects. No one-man cars are used in the city, as labor opposed their use during the war and financial conditions have been unfavorable since that time. Salt Lake City has no large manufacturing industry and has plenty of room to expand in all directions, so the railway company is not subjected to very great shifts in traffic or to industrial peak loads.

SPECIAL TRACKWORK AND EQUIPMENT

The company has discontinued the use of manganese inserts at intersections and instead uses bolted built-up special trackwork. The bolts are "drive fits" with the threaded ends of small diameter so as to avoid injury. The filler is planed down and a tapered steel insert 36 in. long is placed on top. These inserts are changed as they become worn, and this policy greatly aids in reducing the noise at crossovers.

Due to climatic and soil conditions and to questions of maintenance, the company has shown a marked tendency toward the location of all controls and apparatus in the car and not under it. The signal batteries are located over the entrance doors with a consequent great reduction in maintenance, and even the headlight resistances have been maintained at zero cost since they were located on the ceiling of the vestibule. To avoid breakage and obtain low maintenance cost, many of the headlights on the interurban cars have been placed on top of the car, just over the front window instead of on the dash. These headlights are arranged so as to burn 250-watt Mazda lamps with adjustments for a fixed beam angle and intensity. The air governor has also been located above the doors in the vestibule, and in this location operates much more satisfactorily. The location of the air valve, door lever, gong, stool sockets and other controls has been determined by a vote of the employees and is standard for all cars. An improvised "buggy top" door mechanism is used on the changed over pay-as-you-enter cars, whereby one-eighth turn of a 10-in. lever opens or closes the vestibule doors.

A unique type of work car has been made which can be used as a reel car, track harrow or both. Near smelters and where slag gets on the tracks this car is used as a harrow to loosen the lava roadbeds. The harrow proper consists of an old crossover hung on a windlass operated chain under the center of the car.

In this framework are fixed thirteen pointed steel teeth each of which is 2 in. square and about 18 in. long. When needed, the crossover with the teeth inserts is dropped on the track and dragged along the ground between and outside the rails to break up the slag. The device has proved very efficient for certain conditions.

The company has developed many ingenious ways of using scrap pieces of equipment, such as steel and old rail. A very convenient light crane car has been constructed almost entirely from old 72-lb. rails. The sills of the car and the crane proper form a very rigid built-up structure which has proved very useful on the system.

CARHOUSES AND SHOPS

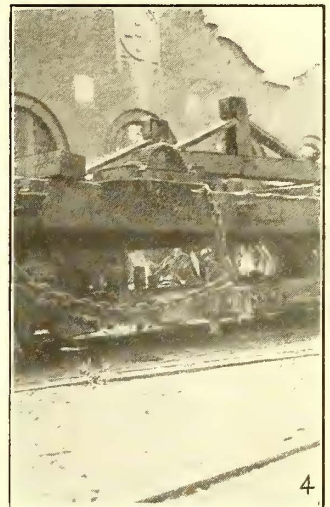
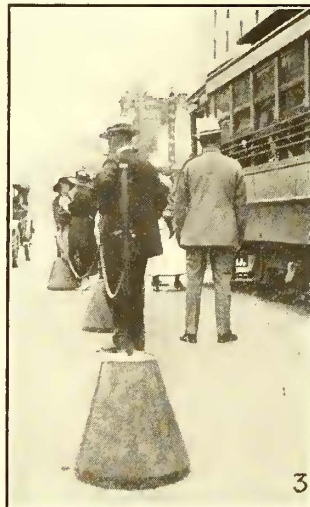
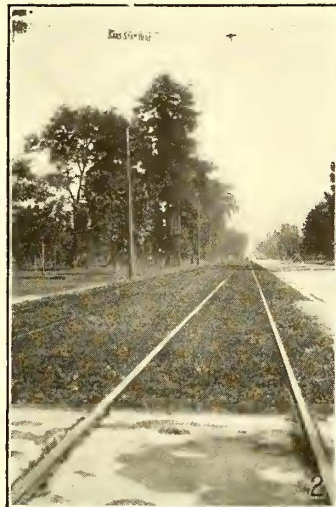
The carhouses, shops and yards of the railway company are located about six blocks from the center of the downtown district. These buildings occupy an entire block 680 ft. square. The carhouse proper is about 430 ft. x 230 ft. and is equipped with several tracks which have a 1 per cent slope toward the rear. The carhouses, shops and store buildings are well designed mission type structures of red brick, steel and concrete.

carhouse would cause delay due to the presence of a sprinkler system. Any tendency for slack in overhead conductors is also eliminated and an exceptional method of isolation is conveniently obtained with a switch and circuit breaker for each section.

The carhouse is equipped with a two-deck International sprinkler system. This sprinkler system is universal throughout the structures and is controlled from several locations by electrically operated push-buttons. A water storage tank for reserve is located on the block.

The shops, offices and storerooms are well lighted and conveniently arranged. The storeroom has a main floor, balcony and basement and is protected from fire by a complete sprinkler system. Especially constructed rooms are used in the basement for the storage of oil and paint, while spare parts and smaller stores are kept in indexed steel bins or trays on the main floor. The company carries a large stock of material and stores due to its distance from railway supply manufacturers.

The carpenter and slight repair shop has five tracks, each of one-car capacity, and is well equipped with small tools and benches. For the repair of the outside ve-



FAST SCHEDULES AIDED BY GOOD TRACK LOCATIONS

No. 1—Double-track construction in elevated center parkway.
No. 2—Double-track construction in park adjacent to a street.

No. 3—A flexible safety aisle in a congested district.
No. 4—Reel car used to support a unique track harrow.

The front is arranged in a series of arches, each of which spans two tracks in the carhouse. In the end wall of each bay over the supporting pier is the monogram of the company with dimensions about 6 ft. square. Motor-operated rolling steel doors are fitted under each arch. The roof has over 200 skylights in it, each of which is about 8 ft. x 16 ft. In the carhouse the tracks are on concrete pit walls for a length of about 200 ft., the pit floors having a 1 per cent grade. These pits are placed under each track with shallow pits on either side. These shallow pits collect the snow or water that drops from the sides of the car when in storage after a trip, permit easier journal inspection and facilitate car washing. Each pit is lighted by lamps which are about 10 ft. apart on either side of the pit wall. Over each track a trolley trough has been made of 4-in., 5½-lb. channel iron with edges turned down. These channels are electrically bonded and insulated from the steel roof trusses by means of wooden blocks. The advantage of the channel type of overhead construction lies in the fact that it permits rapid movement of a car forward or backward without changing the trolley, which in this

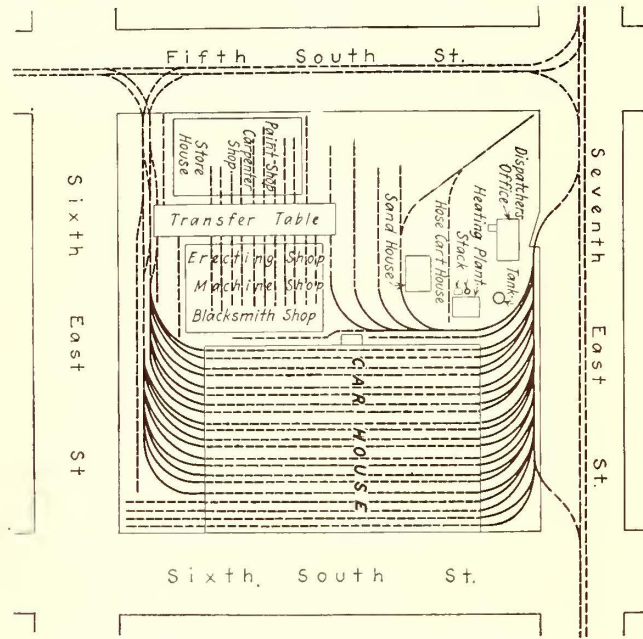
neered car side panels 20-gage sheet iron is now used instead of wood veneer, which depreciated rapidly because of local service conditions. Great care is taken to install this sheet-iron veneer so as to avoid the entrance of any moisture, and the experience with this type of construction has been very satisfactory.

The paint shop has four tracks each with a capacity of two cars. On an average of once in three years each car receives one coat of a special enamel paint on the main body and about every eighteen months a coat of varnish is used on the other parts. The enamel paint which is used has been selected after a great deal of experience with several types of paints and enamels and has given remarkable satisfaction. Two painters and one helper care for all the work in the paint shop. A balcony in the paint shop is used to eliminate dust and dirt when painting or varnishing seats, sashes, or other small parts.

The sandhouse is equipped to use either wet or dry sand and contains stoves, elevators, screens and bins. The sand is sacked from the bins and then the sacks are located in a sand car which is spotted near the

incoming cartracks. Each returning crew upon reaching the sand car places its quota of sand in the car before checking in. This arrangement has proved superior to other methods.

The main repair shop is equipped with forging machines, 1,100-lb. air hammer, a punching machine, drill presses, an acetylene outfit, a complete rail bending and cutting outfit, and other standard equipment. Due to its location, the company is forced to be practically self-contained with respect to its repairs and has developed a very good repair shop and some ingenious and unique "shop kinks" from its experiences. It has



PLAT SHOWING LAYOUT OF SHOPS AND CARHOUSES

recently reground all the cylinders of the car compressors and put in slightly larger pistons with splendid success.

A rather unique operation performed by the company was the use of old rolled-steel wheels and axles for making brake hangers. The scrap material was cut into suitable length with the acetylene torch and then drawn into 1½-in. round bars. The bars were then forged in an Ajax forging machine to a ball on each end, after which the balls were flattened by the hammer and punched to fit the brake-head cone.

This method was used when steel was expensive and hangers produced were excellent, but the present practice is to use 1½-in. round mild steel in connection with a 1½-in. Ajax forging machine and a 1,100-lb. steam hammer. The hangers are all case hardened after forming. Two hangers are used on each brake beam and about 1,200 are in service. The renewals amount to about 200 per year on the cars, which are mostly four-motor types weighing from 40,000 to 56,000 lb.

Steel scrap wheels are formed by the splendid shop equipment into the following tools: Open-end and socket wrenches; anvil tools and tongs; air hammer swages and formers; forging-machine dies; asphalt-cutting chisels and stone-masons' hammers.

Seven of the pits in the repair shops are equipped with car hoists, which greatly facilitate repair operations. The street brooms are subjected to a thorough soaking in a special pit before being placed in operation, as this process results in a large saving due to the decreased brittleness of the brushes. The transfer table has been equipped with snowplows with resultant

decreased trouble from snow in winter operation. Previous to the installation of these plows on the table much delay was caused by the transfer table pit filling with snow. For snow-fighting work and for hauling gravel and other construction materials, the company has three locomotives, one switch locomotive and fifty work cars.

PUBLIC POLICY AND PUBLICITY

The railway management realizes that public relations comprise a large percentage of railway operating success, and this company, under the able direction of H. W. Dicke, general manager, has secured the co-operation and good will of the public to a remarkable extent. One of the chief instruments for informing the public of railway conditions is a publication called *Car Fax*, which is freely distributed on all cars at frequent intervals. The public is informed of the plans of the company and is made aware of all railway conditions through this publication. A case in point is that preliminary to the recent wage reduction *Car Fax* informed the public that the money saved would go toward deferred track maintenance, and when the reduction was obtained this announcement was immediately followed up by the appearance of repair gangs on the main streets. Letters from the public commending or criticising the service or the personnel of the organization are printed in this little pamphlet and it serves to bind the personnel of the railway organization together and inspire them to greater efforts in the line of securing public good will.

As an example of the type of material published in *Car Fax*, the issue of July 23, 1921, gives a complete résumé of the financial condition as affected by the 7-cent fare and ventures to prophesy the future under that fare. The issue starts out with the headline "What the 7-Cent Fare Has Done." "On July 3, 1920, the present rate of fare (7 cents cash, 6½-cent ticket in books of sixteen for \$1, and the 4-cent school ticket in books of fifty for \$2) became effective. With the close of the month of June, 1921, therefore, we have the results of operation for one year on the so-called 7-cent fare, and *Car Fax* is sure that its readers are curious to know just how much 'profits' the Utah Light & Traction Company has made and is making on the 7-cent fare."

The paper goes on to state that the company has always held to the policy that the patrons were entitled

TABLE I—STATISTICS FOR ONE YEAR WITH THE 7-CENT FARE AS PUBLISHED IN *CAR FAX*

Operating Revenue:		
Cash-fare passengers....	16,052,259 @ 7c.	\$1,123,658.13
Adult-ticket passengers...	14,749,896 @ 6½	921,868.50
Adult-ticket passengers...	890,204 @ 5c	44,510.20
School-ticket passengers...	1,197,643 @ 4c	47,905.72
School-ticket passengers...	151,308 @ 3c	4,539.24
Transfer passengers.....	5,569,953 no charge	
Express, mail and miscellaneous revenue.....		20,513.95
Total.....		\$2,162,995.74

1The 5-cent adult tickets and the 3-cent school tickets shown above were in the hands of the public on July 3, 1920, and according to the Public Utility Commission's order the company was obliged to honor them up to July 31, 1920.

to know everything, and that if they did, the company as well as its patrons would fare better than they would if each were suspicious and distrustful of the other. During the past twelve months a total of 38,737,540 passengers were carried, and the total amount of money collected was \$2,142,481.79, or an average of 5.53 cents from each passenger. The exact number of each class of passengers carried, together with the revenue re-

ceived therefrom, as well as from the carrying of express, mail, etc., is given in the printed statement.

The company's costs for operating this property during the past year were as follows:

Operating Expenses:	
Repairs and upkeep of track and pavement . . .	\$166,327 56
Repairs and upkeep of cars . . .	136,553 35
Power to operate, heat and light cars . . .	235,501 91
Wages of conductors and motormen . . .	747,628 16
General and miscellaneous expenses (including accidents) . . .	206,770 33
Taxes and licenses . . .	123,000 00
² Depreciation reserve . . .	144,725 00
Total operating costs . . .	\$1,760,506 31
Net operating revenue . . .	\$402,489 43
Property investment . . .	\$8,669,695 13
Rate of return upon the investment . . .	(\$402,489 43 ÷ \$8,669,695 13) = 4.64%

²The amount of depreciation reserve was fixed by the Public Utility Commission.

The figures used as the property investment is the value placed upon this property for rate-making purposes by the Public Utility Commission as of June 30, 1918, plus additions to property from that date to December 31, 1920.

The net operating revenue of \$402,489.43 for the past year represents an annual return of 4.64 per cent upon the investment in the property, or just about enough to meet the interest at 5 per cent on the money borrowed (through the sale of mortgage bonds) on the property. *Car Fax* goes on to state that no dividends have been paid by the Utah Light & Traction Company for five and one-half years, and that profits are absolutely unknown. In fact, states the paper, "There can be no profits under governmental regulation of public utilities." All that the owners of public utility securities can hope for is a fair return in the nature of interest upon their holdings.

In predicting results of operation during the coming year under the existing conditions, *Car Fax* states that it will not venture to hope for a reduction in carfare because the company will have to spend considerably more money for repairs to track, pavement and cars than it has been spending during the past few years. The paper then goes on to state that with a return of only 4.46 per cent upon the investment in the property as compared with obtainable returns of better than 6 per cent upon U. S. Liberty bonds and from 8 to 10 per cent upon investments in reputable businesses, the public can readily understand why the railways are hard up. The company is optimistic, however, and hopes that with the decreasing costs for materials and wages, the time will come when the property will be prosperous and it will be able to expand and extend its lines into every section of the community. It points out that the street railway is a necessity to any community, and that it will greatly aid in the growth and development of any community. *Car Fax* concludes by stating that the company appreciates the confidence of the people and wants to reciprocate by placing all of its cards on the table face up.

TABLE II—UTAH LIGHT & TRACTION—OPERATING STATISTICS FOR LAST FOUR YEARS

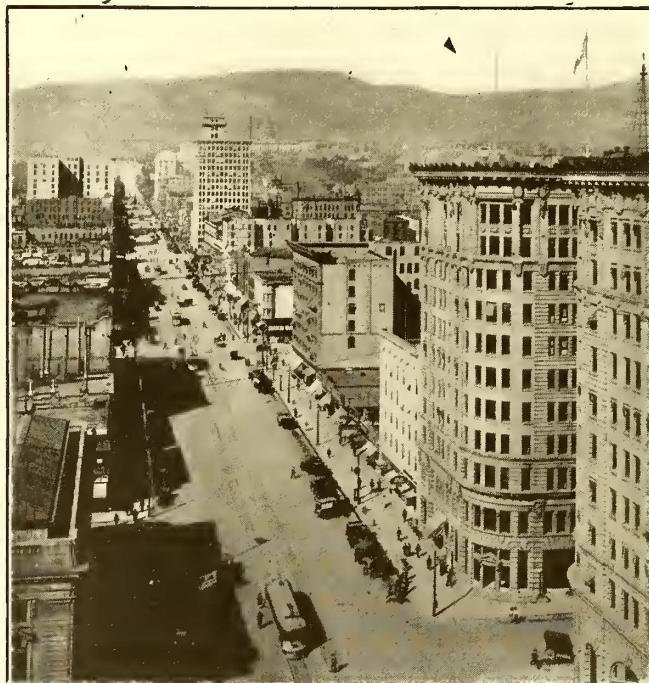
	1917	1918	1919	1920
Gross earnings	\$1,597,315	\$1,602,000	\$1,855,281	\$2,069,482
Operating expenses and taxes	1,133,307	1,142,893	1,245,752	1,489,283
Depreciation	30,000	25,000	150,000	144,725
Operating ratio	0.73	0.73	0.75	0.79
Car-miles	5,627,762	5,466,576	5,303,783	5,316,913
Car-hours	566,086	544,084	525,216	528,022
Number of cars	86	83	80	80
Total passengers	40,320,109	36,174,985	39,521,505	40,512,223
Passengers per car-mile	7.1	6.6	7.4	7.6
Passengers per car-hour	71	66.4	75.3	76.8
Car-miles per car-hour	9.9	10.0	10.1	10.0
Earnings per car-mile	\$0.28	\$0.29	\$0.35	\$0.39
Earnings per car-hour	\$2.82	\$2.95	\$3.54	\$3.09
Expenses per car-mile	\$0.20	\$0.21	\$0.26	\$0.32
Expenses per car-hour	\$2.03	\$2.14	\$2.66	\$3.10

Jitneys cause no trouble in Salt Lake City, because regulatory legislation was passed before they obtained

a foothold. Power is purchased from the Utah Power & Light Company under very favorable rate schedules, since it is largely hydro-electric. Thus, the railway company has been spared two of the trials encountered by many other operators—the coal shortage and the jitneys.

CONCLUSION

The Utah Light & Traction Company is a splendid example of Western traction and illustrates by its prosperous condition, optimistic attitude and ingenious



VIEW OF MAIN STREET, SALT LAKE CITY

installations the results that ability can accomplish with a railway property under severe handicaps inherent in an agricultural community very distant from industrial centers. It is unique in that it operates in a city and district where conditions are such as to give a very static daily and yearly passenger traffic free from fluctuations due to industrial or climatic changes.

Extensive Electrification Plans

World's Survey Shows that Many Countries Are Preparing to Substitute Electricity for Steam—The Present Shortage of Coal Is an Important Factor

THE *Electric Railway & Tramway Journal* for July 8 is a "Special World Issue" and contains data in regard to proposed electrifications in many countries. The following is a summary of the more important data given:

SOUTH AMERICA AND WEST INDIES

In the Argentine the electrification of the suburban lines of the Buenos Aires Western Railway is making progress. The entrance to Buenos Aires is over the city lines of the Anglo-Argentine Tramway Company. Other railway electrification is in contemplation.

In Bolivia electric power will be used on a trans-Andine line from Las Paz to Yungas now under construction. Electricity was selected because of the high price of coal and the presence of large water-power resources along the route. There is at present a 56-

mile electric railway in the eastern part of the republic.

Considerable additional electrification is proposed in Brazil, following the completion of a section of the Paulista Railway, already described in this paper.

In Chile tenders have been invited for the electrification of the Valparaiso-Santiago and the Santiago-Talca lines, and the electrical equipment of a 20-mile section of the Nitrate Railways is being seriously considered.

A report has been made to the government of Jamaica of the cost of electrifying its railway system of 197 miles. The expense is estimated at £1,257,000 and the proposal is urged by commercial interests in Jamaica.

EUROPE

Austria is intending to equip 652 km. of railway route, the work to be completed by June 30, 1925. Of this length 412 km. are single-track lines and 240 km. are double-track lines. Hydro-electric power will be used.

As a result of a trip of inspection, a commission of the Belgian State Railways has recommended the adoption on that system of 1,500-volt direct current with third rail.

It has been estimated by the three principal railway companies in France that the electrification of 8,800 km. of their lines will effect an annual economy of 1,500,000 tons of coal (based on the traffic of 1913). An official commission to study the relative advantages of the different systems has made a tour of the United States and other countries, and has recommended high-tension direct current.

In Great Britain it is believed that nothing further is likely to be done until the railways return to private control and the electrification of railways advisory committee has presented its report. This committee has now been sitting more than twelve months. An interim report in July recommended standardization of both methods and appliances. A few of the lines are making extensions of their electrical divisions.

Italy has extensive electrification plans because of the high cost of coal and the large amount of water power available in the Alps and Apennines. At present the three-phase system of working predominates, this being used on 390 km. of route and 650 km. of track, but there is some trackage equipped with direct current, including a high-voltage direct-current railway between Turin and Lanzo. The railway administration proposes a program of future electrification covering 2,000 km., the total length of the state railway system being 14,000 km. It is expected that this equipment would effect an economy of about 500,000 tons of coal. Active work has been begun on a 2,400-volt line from Rome to Port of New Ostia, a distance of 25 km. Both electric locomotives and motor car trains will be used, and it is hoped the line will be in operation by 1922.

The mountain division of the North of Spain Railway (42 km. in length) is being electrified, and several other projects will probably be taken up soon.

In Sweden the hydro-electric department has asked the government to include estimates of 51,050,000 kroner in the budget of 1921 for the extension of hydro-electric works, some of which are intended for use in connection with a supply of power to the proposed Stockholm-Gothenburg Railway, and the railway administration has asked for a vote of 26,000,000 kroner

for 1922 in addition to the 23,000,000 kroner approved for 1921 for the execution of works for the conversion of the same railway. The cost of the complete electrification of the line is estimated at about 90,000,000 kroner.

The Swiss seem definitely to have adopted the single-phase system which is in use on the St. Gotthard line, the latest line to be equipped and the most important through-line between Switzerland and Italy. Generally 7,500 volts will be used on the trolley line during the period of operation by both steam and electricity, and 15,000 volts will be used when steam traction is suppressed.

A part of the proposed program of the Soviets in Russia, as is well known, is the construction of a super-power system and considerable railway electrification.

ASIA, AUSTRALIA AND AFRICA

The electrification program of the Japanese railways is reported to include from 500 to 700 miles during the next five years, starting with lines around Tokio. Work has also been begun on a tube line in that city.

The electrical equipment of some of the suburban divisions of the steam railroads entering Bombay, India, is being seriously considered.

The Ceylon government has ordered a detailed survey made of that island's hydro-electric resources with a view of possible electrification of some of the lines.

Melbourne, Australia, is completing its electrification of suburban lines which will involve sixteen substations, 145 miles of track, and 702 cars. Forty-four and a half miles are now in operation, and the last of the system as at present planned will be completed, it is thought, in February, 1923. The capital cost of the present scheme when completed will be approximately £5,000,000. Considerable suburban electrification will also probably be undertaken at Sydney, Australia.

The contract for the electrification of a mountain section of the Midland Railway of New Zealand has been placed with the English Electric Company. The section is a little more than 8 miles in length, of which 5 miles are in a tunnel.

The general manager and chief engineer of the hydro-electric department of the Tasmanian government, after an inspection of properties of this kind in the United States, Canada and Switzerland, recommends development of that country's hydro-electric resources. He reports 26,000 hp. is already being used, 70,000 hp. is being developed, and it is hoped eventually to develop 400,000 hp. Several electrifications are proposed.

Some work has already been done on developing hydro-electric power in Java, and it is expected that when a station in the residency of Batavia is finished, part of its current will be used in the operation of the Batavia Railway.

The South African Parliament has authorized the prompt electrification of two sections of government railways, and tenders have been called for from various countries. One section is for a suburban division with heavy passenger traffic extending out from Cape Town. The length of route is 22½ miles, of which 15½ miles is double track. Sixty-four motor cars and sixty trail cars would be required. The other division is a mountain section between Durban and Pietermaritzburg, a distance of 70 miles. The cost for the equipment of this line, including power stations, is £2,921,400.

Merchandising Transportation

In This Final Talk of the Series on the Merchandising of Transportation the Author Explains How Sales Can Be Increased Through the Good Will of the Public and How that Good Will May Be Cultivated

By W.H. BOYCE

General Manager Beaver Valley Company, New Brighton, Pa.



FIFTH ANNUAL NEWSPAPER MEN'S DINNER. MR. BOYCE ENTERTAINS THE NEWSPAPER MEN IN THE VICINITY OF NEW BRIGHTON ONCE A YEAR AT DINNER. IN THIS GROUP HE WILL BE SEEN THE THIRD FROM THE LEFT OF THE MIDDLE ROW

THE most valuable asset a street railway can have on its books is the good will of the public.

Manufacturers rate the value of good will at millions of dollars, and good will is simply the result of the confidence which people in general have in the character of an organization.

To build up good will and extend your radius beyond your present circle is your responsibility. Advertising is one of the mediums that will carry the character of your railway organization to your public and help form opinion.

Public opinion is the greatest power in the world. Without properly formed public opinion a company is lost. Favorable public opinion can be cultivated for your property if you are alive to the fact that you are dealing with human beings.

Successful business men have long since demonstrated that success is achieved through the cultivation of elements of human interest in business. You like to trade at such places—places where there is a friendly desire to satisfy in every particular. We understand

where this is the case that the heart is right, yet there may sometimes be financial reasons why in every particular satisfaction cannot be given. All electric railway companies have their financial troubles, yet all of us can do more to have our public understand these difficulties. In such cases advertise them through your employees (who should be put in possession of the facts) at your clubs, in the lodges, on the golf course, and through newspaper copy, circular letters and car cards.

Present conditions call for economy in operation. You may not be able to do all you want to reach your ideal, but for the salvation of your company do all that you can.

Traditional practice is not enough today. Times and conditions have changed. Some railway operators have not. Wake up! Eight million men have bought automobiles which are taking your traffic and at the same time increasing your operating expenses through increasing your operating difficulties and accident hazards.

Wake up. Leave the wake. Burn the crape. Put pep,

The Beaver Valley Traction Company

Dear Sir,
Madam:

We acknowledge receipt of your letter, which has been referred to the proper department. You will receive a reply just as soon as the matter about which you write can be thoroughly investigated.

We wish to assure you by this card that your wishes expressed will receive our immediate attention.

Yours Respectfully,
BEAVER VALLEY TRACTION CO.

CARD OF ACKNOWLEDGMENT SENT TO LETTERS
OF COMPLAINT

Dollar Day, Beaver Falls, Pa., Thursday, Feb. 17, '21

THE GREATEST BARGAIN DAY EVENT
OF THE YEAR

SAVING MEANS RIGHT BUYING

Now is the time to buy, when prices have been cut to almost pre-war times. Watch the Daily Papers for the Dollar Day Merchant's Ads. When you come to Beaver Falls, look for the Dollar Sign Stores.

Half-fare tickets will be sold by the Beaver Valley Traction Co., upon presentation of this card ONLY.

Tickets good on that date from 8:00 A.M. to 4:30 P.M. Any complaints should be made with Number of Street Car, hour and conductor's number, to

F. F. BARTH, Secretary,
Retail Merchants' Board.

POSTAL CARD SENT OUT BY RETAIL MERCHANT BOARD, FEB. 17, 1921,
EXPLAINING ABOUT REDUCED FARES

new ideas and new thought into the merchandising of transportation.

Cultivate your public with the knowledge that "all eggs look alike but they 'ain't.'" You may be able to reach the auto-riding highbrow, but don't overlook all of your every day car riders. Many of them are influential office-holding persons. They are all public-opinion formers and car riders. If you can't speak their language, get some one who can. Your experience, integrity and good intentions alone are not enough. But when all of them are backed by continuous interest on

the part of your employees and yourself—then a different story.

Don't forget that the heart must be right.

Your interest in all civic matters, the expenditure of your time, money and effort in local commercial or civic bodies, these are evidences of your good faith.

If you are too busy attending to details to undertake this work, why should I waste my time writing these articles and you waste yours reading them. True economy must prompt you to get proper and sufficient assistants to care for small matters.

FINAL WARNING
10 Day Sale of
STREET CAR TICKETS
Closes at Midnight
APRIL 21
Buy enough to last you three months at least. They will not be sold again within three months.
BUY—BUY NOW
100 Tickets at \$4.50
By using tickets you—
Save three cents on each round trip to Beaver Falls from Beaver or Rochester.
A 4 cent saving round trip Monaca to Beaver Falls.
A five cent reduction on the round trip Beaver to Morado.
A six cent reduction on the round trip Rochester to Ambridge. It's a reduction of 1-2 cent each fare zone on both lines.
Pittsburgh & Beaver Street Railway Co.,
The Beaver Valley Traction Company,
W. H. BOYCE,
General Manager.

BARGAIN SALE OF STREET CAR RIDES
To acquire some much needed cash during the existing industrial depression we have planned a
10 DAY BARGAIN SALE OF STREET CAR TICKETS
During this ten day period from 11 to Thursday, April 21 you can purchase 100 tickets for \$4.50 at any of our office stores and banks. Positively the tickets sold again by us after this ten day sale of three months. Tickets will be good for three months. Tickets will be good for three months. Tickets will be good for three months.
SOLICITORS WILL ON STORES AND
So that they may purchase for their patrons. Later advertisements will be placed in stores and banks having the books. This is a ten percent investment.

Have You \$4.50 To Spare? We Will Give You \$5.00 In Car Tickets For It and We Will Spend the Money Right Here.
OUR PURPOSE
is to keep all work as many of our men as possible.
The hundreds out of employment who desire to work are entitled to some consideration. They are our patrons. We want them to have the benefit of this sale and if we can give some of our track revenue to them, we will do so.
TIME LIMIT
These tickets will be sold for ten days only. After that you cannot buy them from us. We guarantee there will not be such a sale again within ninety days.
DECIDE AS INDIVIDUALS
Do you want to help men out of work and keep them from being laid off? Your money will earn ten per cent and you will be helping to abate unemployment.
CREDIT FOR YOU
Send us your check for as many books as you want. We will deliver them. In a later advertisement all those buying tickets for resale in lots of 50 books or more will be listed.
BUY BY MAIL
BUY AT YOUR BANK
BUY AT THIS OFFICE
BUY AT YOUR STORE
Valley Traction Company
W. H. BOYCE, General Mgr.

Traction Co. Will Have a Bargain Day
For the first time in the history of any street railway the local lines are going to conduct a genuine discount sale. It is planned to place on the market for ten days books of tickets at a price that will mean a big reduction in the rate of fare locally. The present fare is five cents and this is one of the very few communities in the United States where the middle class will purchase a street car ride. The local lines have taken the lead in street railway projects that have won a place for many of the lines of the country. The local roads were the very first in the United States to conduct publicly campaigns. In the

YOU CAN BUY STREET CAR TICKET AT THE FOLLOWING BANKS:
First National Bank, Beaver Falls
John F. Reeves Co., Beaver Falls
Parmer's National Bank, Beaver Falls
Federal Title & Trust Co., Beaver Falls
Beaver County Trust Co., New Brighton
Union National Bank, New Brighton
Old National Bank, New Brighton
F. McIntosh National Bank, Beaver
Lawer Trust Company, Beaver
First National Bank, Rochester
Rochester Trust Company, Rochester
Citizens' National Bank, Monaca
Freedom National Bank, Freedom
Ambridge National Bank, Ambridge
Ambridge Savings & Trust Co., Ambridge
100 TICKETS \$4.50
These tickets were purchased by the banks during the Bargain Sale April 11 to 21st. They are not on sale except at the banks named.
THE BEAVER VALLEY TRACTION CO.,
W. H. Boyce,
General Manager.

Features of the Beaver Valley Traction Company Publicity

From April 11 to April 21, 1921, the company had a "bargain" sale of tickets, or a reduction of 10 per cent. These tickets were on sale at various banks, stores and factory offices and were good until used. This bargain sale was advertised as shown in the upper series of illustrations.

The lower series of illustrations show how the Beaver Valley Traction Company co-operated with the merchants of its localities by reducing its fares for special events such as "dollar" days, and the exhibition of Charlie Chaplin in "The Kid." The reproductions show how many of the merchants called attention in their newspaper advertisements to this fare reduction by the company.

Boegg & Brandon Co.
Special Street Car Fare for Suburban Day
Next Thursday, the Beaver Valley Traction Co. will sell half fare tickets for the round trip from New Brighton, Rochester, Beaver, Freedom, Monaca and College Hill. Buy your tickets from the conductor when entering the car. This fare is good only between the hours of 8 A. M. and 4 P. M.

Boegg & Brandon Co.
SPECIAL STREET CAR FARE FOR SUBURBAN DAY
Next Thursday the Beaver Valley Traction Company will sell half fare tickets for the round trip from New Brighton, Beaver, Freedom, Monaca, College Hill, Erie and College Hill. Buy your tickets from the conductor when entering the car. This fare is good only between the hours of 8 A. M. and 4 P. M.
WOOL DRESS GOODS SPECIAL FOR SUBURBAN DAY
This one day we offer you your choice of

VALLEY
SAVE IN OUR LADIES THREE RACES
Please don't expect these prices. And please don't ask to that also is impossible.
1/2 FARE
On Street Cars — Give Post Cards To Conductor.
LADIES THREE RACES
Dolls

Regent Theatre
THREE DAYS—MONDAY, TUESDAY AND WEDNESDAY
February 28th, March 1st and 2nd
Charlie Chaplin in "The Kid"
The first showing in Beaver Valley of this \$1,000,000 picture
CONDUCTORS ON STREET CARS
Will sell you a ticket having six and one-half tickets on together with admission ticket to the theatre for fifty cents.
If attending the show from Beaver, Bridgewater, RR Center, Freedom, Conway or Monaca you save 15 cents. Save time waiting in line. Ticket good at any performance showing this picture and car tickets good any time of the day or night these three days. Just ask the conductor for a Regent ticket. Cost fifty cents. You save 15 cents minus you and the time waiting at theatre.

PAY YOUR FARE
70
HASSON BROS.
AMERICA'S BEST SHOWS
JUNCTION PARK
June 11 to 23d
AND RIDE HOME FREE ON THE STREET CARS
This is a gift of the company in view of the times and an invitation to attend this unusual, stupendous, aggregation of shows at Junction Park.
You can ride from Conway, Freedom, Monaca, Beaver, Vantage, College Hill, Morado, Beaver Falls, New Brighton for one-half fare.
Just—pay your fare gong and stop at the main entrance of Junction Park and you will be given tickets to take you home. Good only 6 P. M. to midnight each day and tickets good only on day issued.
THE BEAVER VALLEY TRACTION COMPANY

DOLLAR DAY—THURSDAY, FEB. 17th
1/2 Street Car Fare
1123

Where Dreams Become True
Renter Becomes Owner in 60 Days
1/2 STREET CAR FARE SUBURBAN DAY
BERK
Everything Ready To Go!
INTER-CITY FUEL COMPANY

STREET CAR FARE 1-2 Fare on Suburban Day
SUBURBAN DAY SALE OF Fall

After all is said and done all methods of merchandising transportation are partly wasted without the good will of the public. It is yours for the asking and doing—

GOOD WILL OF PUBLIC CAN BE HAD

- IF the heart is right;
- IF you are not a double dealer;
- IF you are a good mixer or know you can afford to employ one or more;
- IF you can take the time to read of what the other fellow is doing;
- IF you are not so smothered with detail that you do not find time to do new constructive thinking;
- IF you realize that some of the sales methods of other successful men are applicable to your business;
- IF you "keep your ear close to the ground";
- IF you are human and realize that your business success comes from human beings;
- IF you are not penny-wise and pound-foolish with expense accounts;
- IF you know that adverse public opinion costs you car riders and damage claims;
- IF you deal fairly and squarely with employees and public;
- IF you realize that there is a lot in that Golden Rule;
- IF you know that your regulations and rules should be tempered with human kindness, but not to the extent of lax discipline;
- IF you let the members of your organization (who are just disseminators of "inside stuff") know what is going on;
- IF you do not permit favoritism to be shown;
- IF you realize that today the trouble with that individual might have been overwork, financial or domestic;
- IF you know that there have been known cases of supervising officers being of insufficient mental capacity, out of touch with the rank and file, or tyrannical;

IF you know that fair dealing draws men together and that square dealing holds them together;

IF you feel that the transportation game is the greatest game ever;

IF you are a hard player and a good loser;

IF you are not "Mister" to all the people in your community;

IF you remember that, "A soft answer . . .";

IF you recognize all the rights of others;

IF you know that America's transportation facilities have done much toward democrazing her;

IF you know that it is more blessed to commend than to condemn;

IF you can be true to yourself.

IF you play the game fairly—and put all the cards on the table.

But, it is now 2:30 a.m. IF I don't get to bed I won't be in shape tomorrow to meet the "IFS." I must not get into that condition; for, believe me, being able to recognize the "IFS" and call them by their first names is a paying proposition in the cultivation of the good will of the public and the merchandising of transportation.



WE SAVE YOU TIME

Why Not Assume the Same Attitude Towards Us as You Do to the Trades or Professional Man?

At the popular restaurant you'll wait an hour for a table and think nothing of it. Even then you will tip the head waiter a dollar for keeping you waiting.

If you have to wait a few minutes for a street car your temper is immediately ruffled, the system is rotten, and to your view, the world is coming to an end. You pay us a nickel—and ask for a transfer. We get no tip, we get kicked and yet give prompt and complete service. The Doctor keeps you waiting. Offer him a nickel and see what you get—nux vomica we bet.

The Manicurist keeps you waiting, so does the Hair Dresser.

The Lawyer keeps you waiting.

The Barber keeps you waiting.

Everywhere you wait and consider the time well spent and will pay large sums and tips for the privilege of waiting.

We don't want you to wait on cars; we would like to have a car at your elbow the instant you decide to ride, and thus demonstrate to you that service is what we aim to give. Just how much service your nickel will buy is in direct proportion to what state of mind you are in and how you view our efforts.

Sound Reasonable? Read It Over, Think It Over.

THE BEAVER VALLEY TRACTION CO.

ADVERTISEMENT ON DELAYS

THE BEAVER VALLEY TRACTION COMPANY

New Brighton, Pa., Feb. 17, 1921.

DEAR SIR:

You have a fine store. Show windows nicely dressed. Sales people neat appearing and courteous. You have a large stock. You can give a prospective purchaser a large selection.

But you cannot make large sales nor many sales unless you get people into the habit of coming to your store. You know the most buying is done in the crowded store. More goods are sold to the "sight" buyer.

You go to New York, to the shop or to the mill, just so that you can see the goods. Manufacturers have traveling salesmen for the purpose of "showing the goods." That conclusively proves that the sale made through exhibition of the goods is the satisfied sale, and, also that exhibiting the goods sells.

Now we are getting to the point. Telephone orders must be delivered. The expert telephone salesman has not yet been developed; in the present stage they are order takers, and in reality do not sell or increase business for you.

To encourage shopping by telephone detracts from the number of sales possible when the customer calls in person, and increases your number of deliveries. The telephone, of course, has its use in the business but as a sales adjunct it does not compare favorably with the personal contact.

Can you not so frame your advertising that it will get more people into your store? Here is where our interest comes in. Get them to ride down. It keeps them in a good humor. When the people are riding you are selling more goods. When they walk or stay at home your business falls off. You could even afford to refund the car fare on purchases over a certain amount.

In what way can we help you to get the people to visit your store?

Very truly yours,

GENERAL MANAGER

THE BEAVER VALLEY TRACTION COMPANY

New Brighton, Pa., Jan. 28, 1921.

To GENERAL MANAGER OF THE FACTORY ADDRESSED.

Dear Sir:

In order that we may promote the punctuality of, and give improved transportation service to your employees, will you kindly fill out and mail the following facts in the inclosed envelope:

Number of persons employed during normal

times

Number now working.....

Time work starts.....

Time of quitting.....

Number of female workers.....

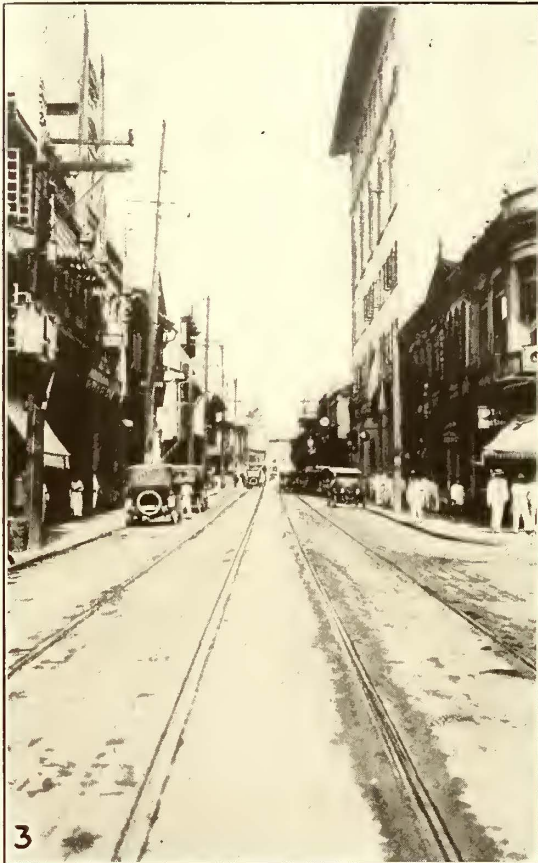
It will also help us to serve you better if you will advise us when you increase or decrease the number of your employees.

Signed

Name of Plant.....

Return to:

W. H. Boyce, General Manager,
New Brighton, Pa., in the
inclosed envelope.



**Views in
Manila on the
Meralco Line**

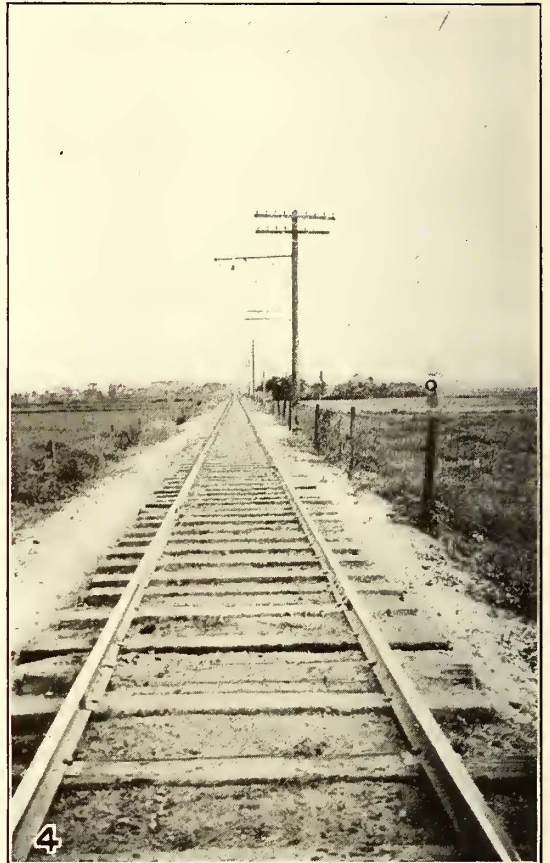
No. 1—Waiting station at Plaza Goiti.

No. 2—Plaza Binondo, looking toward Blanco Bridge.

No. 3—A typical business street.

No. 4—A section of open track construction.

No. 5—Center pole construction in one of the fine boulevards in Manila.

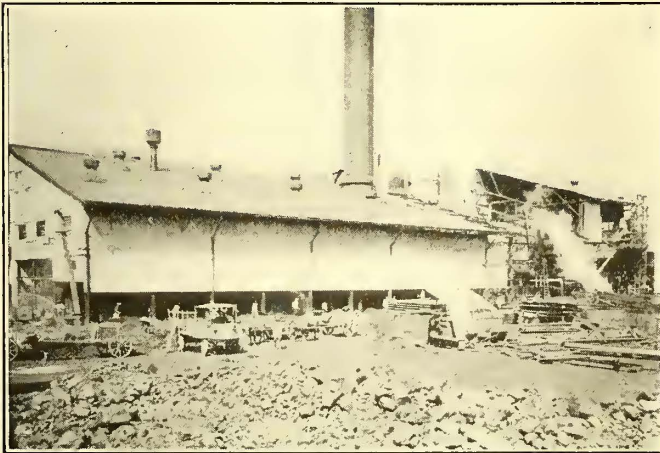


Manila Railway Business Growing

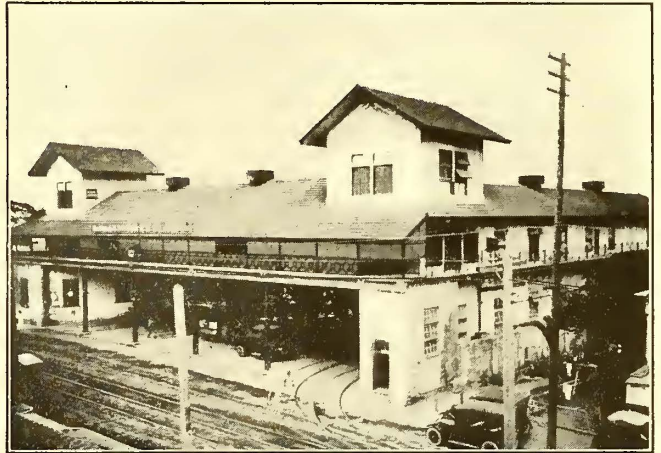
ONE of the largest utility properties outside the United States, conducted by an American company, is the Manila Electric Company, which operates the electric railway and light system at Manila, Philippine Islands. The outstanding capital stock (all common) is \$5,000,000, on which the company has paid dividends every year since 1906. The rates from 1906 to 1914 varied from 3 per cent to 7 per cent; since 1914 the rate has been 6 per cent each year. The earnings of the company, both gross and net, have been larger this year than last, in spite of the fact that the Philippine Islands have felt the world-wide business depression of the last twelve months. But it has not been as acute there as in many parts of the United

States, as there have been no large manufacturing plants to close down.

The company owns 52 miles of track, about 130 passenger motor cars and a number of trailers, the latter used principally during the rush hours. At present the company has a number of open cars, but these are being converted to semi-convertible end-entrance cars. The cars are divided into two sections to provide accommodations for first-class and second-class riders. The two compartments are separated by a leather strap extending across the aisle. Otherwise there is no difference between the accommodations supplied to first and second-class passengers, and when the car reaches the end of the line the compartments are reversed. Eighty per



THIS BOILER ROOM IS WELL VENTILATED



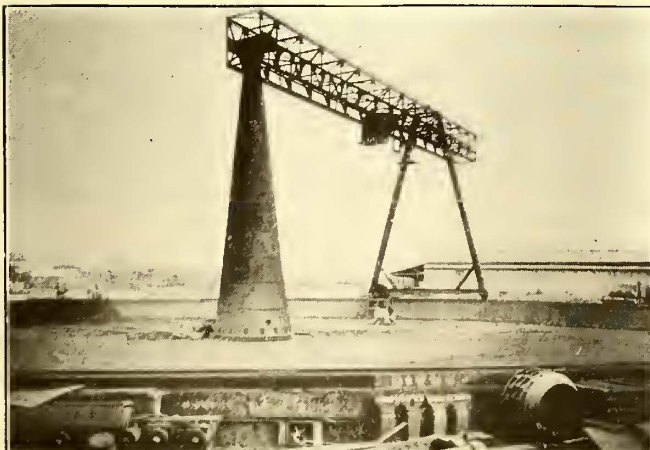
SPANISH ARCHITECTURE IS USED IN MAIN CARHOUSE AND OFFICE BUILDING

THE COMPANY'S BALL TEAM, CHAMPION OF THE MANILA BAY LEAGUE

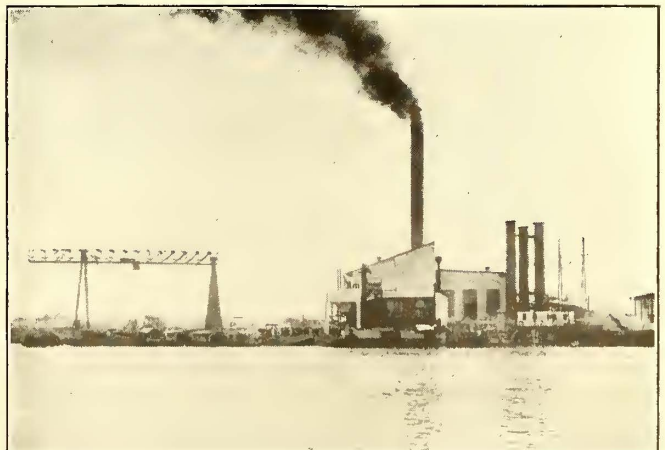


THE BALL TEAM WAS ALSO THE WINNER OF THE "QUEZON" CUP

OPEN STORAGE BUNKER RECENTLY COMPLETED



POWER STATION FROM THE RIVER



cent of the traffic is second class. The first-class fares are: cash, 6 cents, and tickets, 5 cents. The second-class fares are: cash, 5 cents, and tickets, 4 cents.

At present power is being supplied from a steam station of over 10,000-kw. capacity and a new 5,000-kw. turbine generator is now being installed. Most of the coal used comes from China, and the company has recently completed a large storage bunker with circular crane, as shown in one of the accompanying illustrations. Other typical views are shown. The property is operated by the J. G. White Management Corporation.

German Conditions Not Favorable

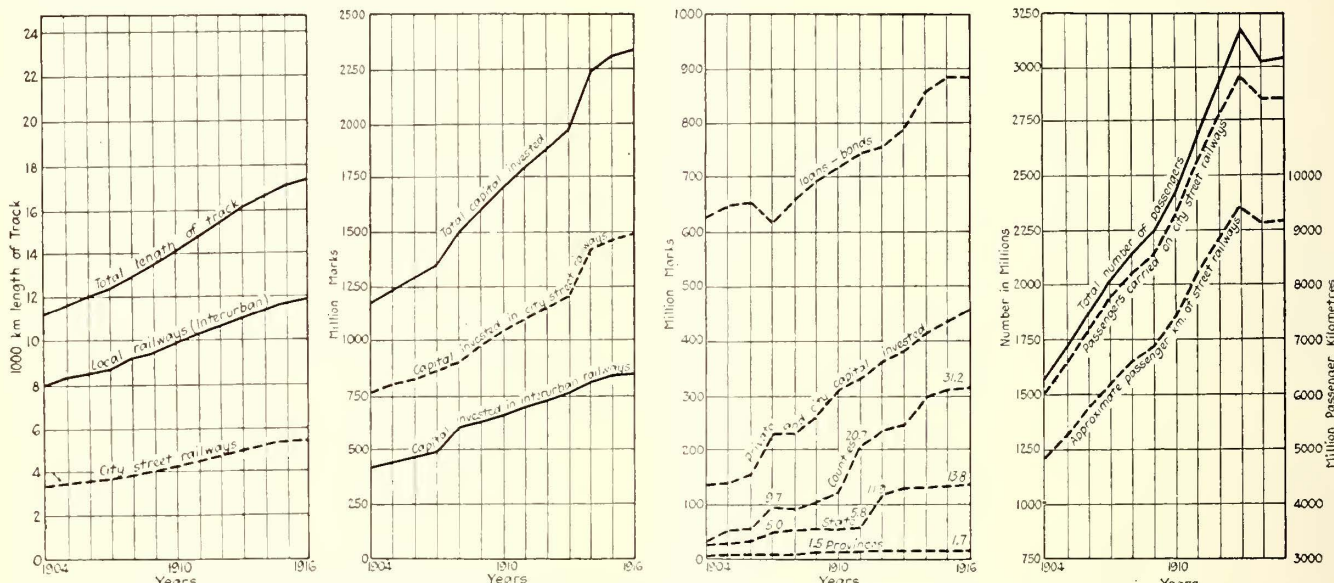
Some Properties Are Being Taken Over in Whole or in Part by Municipalities, but Cities Have Difficulty in Financing Improvements

AFTER the German revolution a number of German street railway systems were taken over in part or in whole by the municipalities. This policy was accepted without opposition in most cases by the owners. Track and rolling stock had deteriorated considerably during the war

56,130,000 of the total capital stock of 103,530,000 marks. Private investors thus retain the controlling interest, while the state is the largest stockholder. After 1943 the state may take over the property at a price based on the average gross revenue of the previous five years. The state also guarantees interest and amortization of the bonds.

Public ownership of the railway properties has not greatly improved their financial status. In fact, it has been rather the reverse, and a number of cities are actually contemplating the transfer of the railway back to a private organization in which it is intended to keep a part interest. This seems imperative for the reason that the large capital investments required for making up the deficit and for renewals of rolling stock, track and the necessary maintenance generally exceed the financial ability of the city's treasury. Moreover, the organization of the municipalities is not elastic enough financially to raise new funds, city loans being out of favor with the public. For providing fresh capital, the commercial company proves by far the better organization.

The statistics in the accompanying charts give a general idea of the status of German street railways. They are from a paper presented at the Vienna meeting of the Internationale Strassenbahn und Kleinbahn Verein, by Prof. Dr. Helm.



MILEAGE STATISTICS AND CAPITAL INVESTED IN GERMAN STREET AND INTERURBAN RAILWAYS—DIVISION OF CAPITAL IN CITY ELECTRIC RAILWAYS—STATISTICS OF PASSENGER TRAFFIC

and large capital investments would have been required in the early future. This fact and the great cost of materials greatly facilitated negotiations for the transfer of ownership. The method of municipalizing differed in various cases. The most frequent forms were the following: (1) Purchase of the assets; (2) purchase of the capital stock, after which in two cases the company was dissolved; (3) purchase of part of the company's stock, in most cases the control, whereby the company retained ownership.

The most extensive transaction of the kind mentioned was the taking over by the city of Berlin of the Berlin street railway system, which was owned by the Grosse Berliner Strassenbahn Aktiengesellschaft. This transaction was effected by the purchase of all of the assets of the company by the municipality, at a price 40 per cent higher than the nominal share capital, which at that date was about 100,000,000 marks. The purchase price was paid in bonds issued by the city. In Leipzig the stockholders received city bonds at par, plus a small cash bonus per share for their property. In Erfurt the city acquired two-thirds of the capital stock of the company, the transfer being made at 1,030 marks per share, while the last stock exchange quotation was 1,580 marks. The management gives as a reason for such sacrifice that it regarded "the future financial situation of the formerly prosperous and sound enterprise as hopeless." In Hamburg the state took over

Auto Men Adopt Truck Speed and Weight Allowances

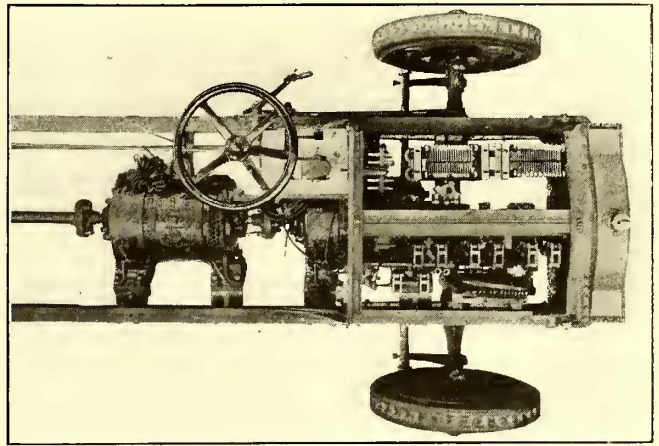
AT A RECENT session of the motor truck members of the National Automobile Chamber of Commerce new standards for body weight allowances, gross weight, chassis, body and total load and new standards for speed were adopted.

Under the new standard the speeds adopted are now, for trucks, including gross weight, chassis, body and total load, up to 2,800 lb. when equipped with pneumatic tires, 25 miles per hour; with a load up to 4,000 lb. on solid tires 25 miles per hour; 8,000 lb., 20 miles per hour; 12,000 lb., 18 miles per hour; 16,000 lb., 16 miles per hour; 20,000 lb. and over, 15 miles per hour.

These speed ratings will be recognized by the manufacturers as a maximum and will not be exceeded under any conditions. Body weight allowance adopted for 1 and 1½-ton trucks was limited to 1,200 lb.; for 2 and 2½-ton trucks, 1,500 lb.; for 3, 3½ and 4-ton trucks, 2,000 lb.; for those of 5 tons capacity and over, 2,500 lb.



PACKARD TROLLEY BUS COMPLETE WITH THE STANDARD GAS-ENGINE CHASSIS



FRONT END OF CHASSIS SHOWING METHOD OF MOUNTING EQUIPMENT

Details of Packard Trolley Bus

Trial Tests in Detroit of New Vehicle Make Favorable Impression on City Officials—Brill Body on Packard Chassis with Westinghouse Electrical Equipment

THE trolley bus recently built by the Packard Motor Car Company of Detroit to prove the adaptability of the Packard truck to electrical equipment has been given a try-out over a special line built on Harper Avenue by the Detroit Municipal Railway System.

This trolley bus differs in some aspects from others in that it is designed so it can be readily converted into a gasoline-driven unit without any material changes in construction. It also carried two trolley poles, one for each wire. While ultimate service with the trolley bus would undoubtedly require a loop for turning, tests have demonstrated that it was possible to Y the vehicle in a narrow street, the same as any self-propelled unit. The operation, however, required one shift of the trolley poles. With the two poles used such an operation was thought to be impossible, but it is evident the bus can run backward under its own power.

The foot type of control used affords smooth acceleration, and tests showed it could attain a speed of 15 m.p.h. in ten seconds. The maximum speed of the vehicle is 22 m.p.h. A motor-driven sequence switch controls the operation of the resistance notches as well as the transition from series to parallel operation. The

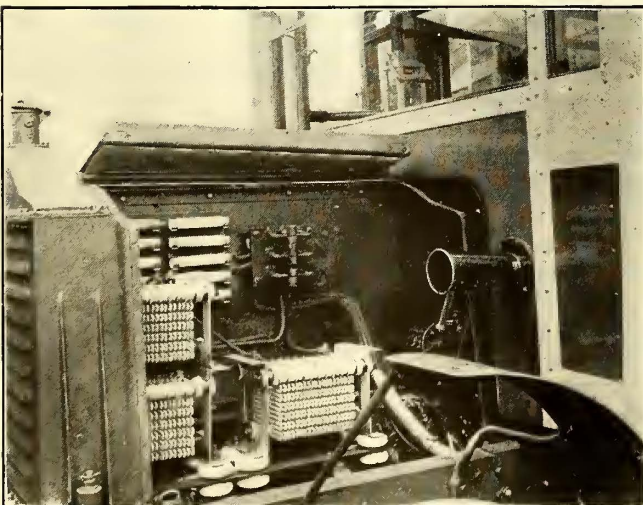
speed of this sequence switch motor is directly affected by the current in the propulsion motors.

The design of the bus is shown in accompanying illustrations. It has a seating capacity of twenty-five with considerable space for standees. The floor height is about 2 in. more than the modern safety car and two steps are necessary for boarding. The body is about 25 ft. long. The complete vehicle weighs 11,800 lb., of which 57.5 per cent is carried on the rear wheels. The chassis, including motors, control apparatus and resistors, weighs 7,190 lb., which is 175 lb. less than if equipped with a gas engine.

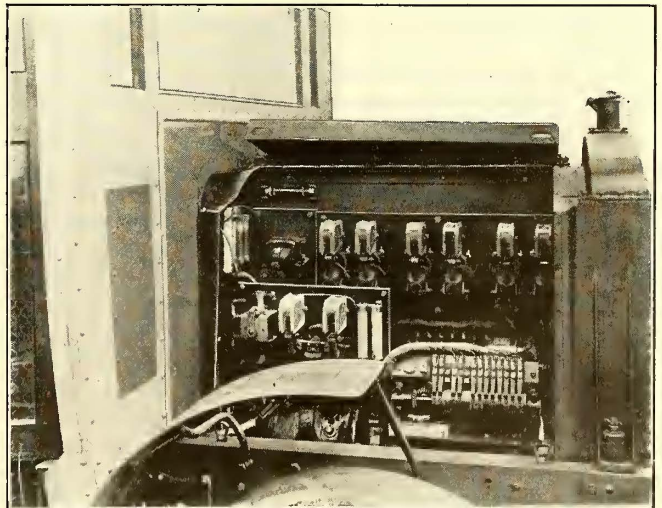
The body, built by J. G. Brill Company, is mounted on standard ED Packard chassis. Two 25-hp. Westinghouse safety car motors mounted in tandem furnish propulsion. The total gear reduction from motor to wheels is 1.75:1. The wheels mount 34-in. cushion tires.

The current collecting devices consist of two separate trolley bases with 18-ft. poles, swivel harps and 5-in. trolley wheels having U-shaped grooves. The trolley bases are mounted on the longitudinal axis, one 30 in. back from the other, with the front base elevated 10 in. above the rear base. The running board is approximately 11 in. above the ground.

The control apparatus includes two small electrically operated line switches complete with overload trip, six small resistance and transition switches, a foot controller, a manually operated reverser, a motor cut-out



RESISTORS, FUSES AND MOTOR CUT-OUT SWITCH IN LEFT-HAND SIDE OF HOOD



THE CONTROLLER AND CONTACTORS ARE LOCATED ON THE RIGHT-HAND SIDE OF THE PARTITION

switch and a set of starting resistors. All of this apparatus is mounted within the usual engine hood, the resistors being mounted on one side of the center line whereas the circuit interrupting devices and other important control items are located on the other side where they are ventilated, yet protected from the weather as shown in the illustrations. The partition dividing the hood into two compartments is of a heat resisting insulating material which acts more or less as a switchboard for the control apparatus.

The reverse and overload reset levers project through the dash at a point convenient to the operator.

Selling Transportation at Pageant

Electric Lines in Chicago Capitalized Opportunity to Tell Nearly One Million People in Attendance at Pageant of Progress Facts About the Railways

THE Chicago Elevated Railways, Chicago Surface Lines and Chicago, North Shore & Milwaukee Railroad made the most of the recent Pageant of Progress held on the Municipal Pier in Chicago, July 30 to Aug. 14, to interest the people in attendance in the magnitude of the enterprises carried on by the local companies and to "sell" them on the character of service

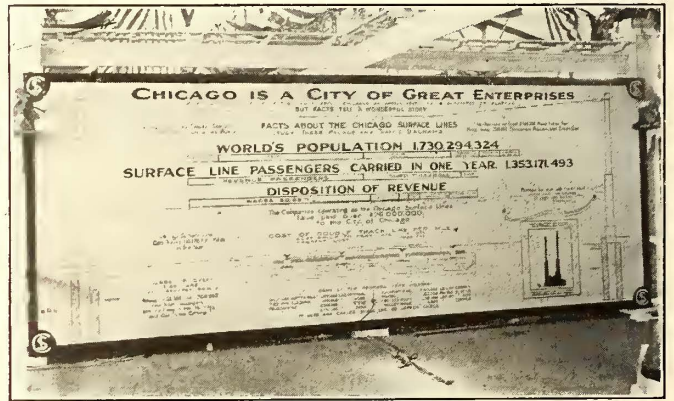
and new trailers now being installed in Chicago. The observer was reminded that in 1860 the longest ride for a single fare was 2 miles, while it is now 33 miles.

On a board at the opposite end of the booth were graphically shown some figures giving an idea of the magnitude of the Surface Lines' business, the amount of money invested and the rush-hour problems. The main points brought out here were that the number of passengers carried in a year by the Surface Lines is practically equal to the population of the entire world; that the trackage is equal to a double-track line between Chicago and Buffalo; that more than 50 per cent of all the revenue collected goes to wages, while only 4.71 per cent goes to the company; that the cars travel more than 118,000,000 miles a year; that the company employs more than 15,000 employees, etc.

In the center of the booth was a four-wing board on which were mounted enlargements of pictures showing the great traffic congestion and therein explaining some of the causes of delay to the street cars. A transfer-counting machine which will count accurately 800 transfers a minute attracted a great deal of attention, this being operated almost continually and impressing how the company values and accounts for all transfers. The thing which perhaps startled the visitors most of any-



SIXTY YEARS OF STREET CAR TRANSPORTATION AS DEPICTED BY CHICAGO SURFACE LINES



A FEW STARTLING FACTS PRESENTED IN A WAY TO MAKE AN IMPRESSION

supplied. During the sixteen days of the pageant there was an average daily attendance of 55,000, of whom a large proportion stopped at the railway booths long enough to show interest and carry away new impressions and copies of the city map and small booklet prepared by the Illinois Committee on Public Utility information entitled "Chicago's Genii, the Public Utilities," and containing some very interesting information about each of the local public utilities. All three of the booths were filled with people practically all of the time and those who represented the companies report great interest and believe that, judging from the large number of questions asked and discussions entered into, the cause of the local railways was greatly helped.

John E. Wilkie, assistant to general manager Chicago Surface Lines, having in mind the general diffidence of the public toward statistics, endeavored so to portray four or five main points that the guests would naturally absorb them, or at least take away the correct impression. Across one end of the booth in which the Surface Lines' exhibit was displayed was a series of beautifully water-colored pictures showing the progress of the type of cars used since 1860, carrying the memory of the "old timers" back to the horse-car days and through the cable cars, early electric cars, to the modern street cars

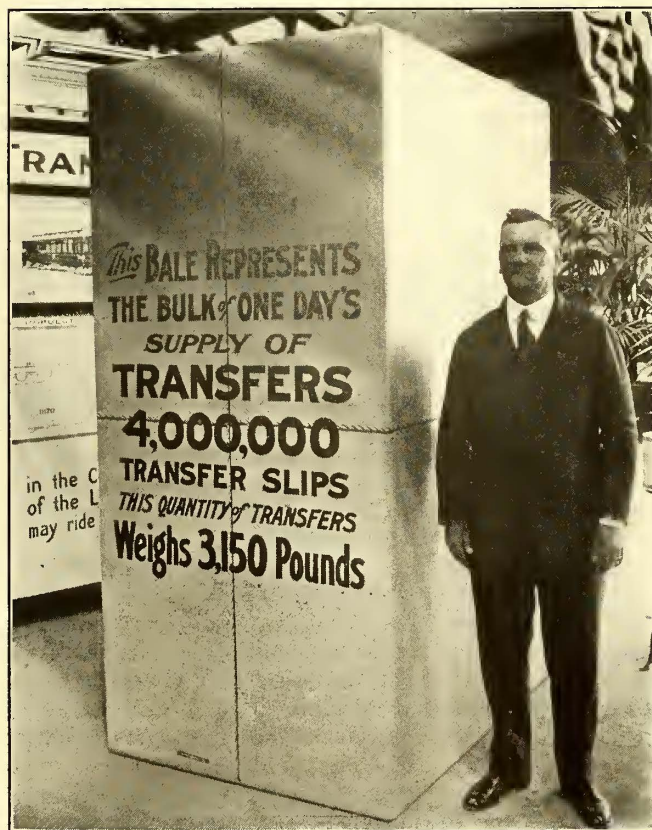
thing was the large box made up to represent the bulk of one day's supply of transfers used on the Surface Lines. This is almost astounding even to a railway man. It is shown in an accompanying picture and it measures 7 ft. 7 in. x 4 ft. 10 in. x 3 ft. 10 in.

A good deal of interest was also manifest in the picture shown by two photoscope machines which ran continually. One of these was intended to teach safety-first lessons and showed chiefly boarding and alighting accidents and affording some humor as well as serious thought. The other photoscope showed pictures taken at some of the beaches, parks, ball parks, Art Institute, Field Museum and various spots of beauty and pleasure about the city, and each view carried directions as to how to get there by street car.

Having anticipated warm weather and shortage of drinking facilities, the Surface Lines' booth became very popular as a watering spot. On the first day, before the concessionaries got started, a police detail was necessary to line the people up for a drink and one hundred 5-gal. bottles of water were served that Sunday afternoon. Another popular feature of the exhibit was the map of the city telling about points of interest and how to get there. About 30,000 copies a day of this map were given away.

METROPOLITAN ELEVATED RAILROAD			
	1895	1920	
Population served	339,287	642,562	
Property value (Logan Square)	\$100	\$750	
SOUTH SIDE ELEVATED RAILROAD			
	1893	1920	
Population served	93,374	420,716	
Property value (Sixty-third and Halsted)	\$40	\$1,750	
OAK PARK ELEVATED RAILROAD			
	1893	1920	
Population served	94,602	156,982	
Property value (Oak Park)	\$50	\$300	
NORTHWESTERN ELEVATED RAILROAD			
	1900	1920	
Population served	238,679	431,636	
Property value (Wilson Avenue)	\$60	\$2,000	

It is to be regretted that, despite various attempts, the exhibit of the Chicago Elevated Railways would not photograph, for it represented a very fine piece of work. It consisted in the main of a huge map of the city mounted in a beautiful frame and showing, with the help of excellent illumination, the lines of the several elevated railways. Ribbons attached to the map at a



THE THING WHICH PRODUCED THE MOST EXCLAMATIONS

certain section of the elevated lines extended out to tables of data on the sides of the booth where figures showed the relative population served and property value when the line was built and in 1920. The principal data thus shown are of interest to the railway field and are given in the table above.

Numerous pictures also showed how territory looked when the elevated was first built and how it looks now. Other pictures showed some of the elevated construction work, different types of equipment, etc. A map of the elevated railways contained in a folder, pointing out numerous places of interest in Chicago and how to get there, was also given away. Prominent display was also given to the figures showing that 2,500,000,000 people have been carried in thirteen years without a fatal accident to a passenger.

The exhibit of the Chicago, North Shore & Milwaukee

Railroad consisted mainly of a darkened booth in which a motion picture, entitled "Along the Green Bay Trail," which is a very interesting little story designed to attract passenger travel to the electric line between Chicago and Milwaukee, was shown. This picture was run continually and it was surprising the number of people who would stop at the booth and see the picture clear through.

Wage Reductions Approach Deflated Cost of Living

AVERAGE wage reductions of approximately 15.9 per cent since the first of this year for over 4,540,000 workers in industrial concerns in twenty key industries throughout the United States are shown in an analysis of industrial wage tendencies made by the J. L. Jacobs Company, engineers and statisticians of Chicago. The survey made includes a digest of reports from official documents and reliable periodicals, covering 693 establishments or industrial groups which are typical of the industrial and utility activities of the country.

The summary analysis from the 693 establishments reporting show that approximately 43 per cent of these industries reduced wages 20 per cent or over; that 19.9

WAGE REDUCTIONS BY INDUSTRIES

Industries	Estimated No. Employees Affected	Average Wage Reduction, Per Cent
Cotton manufacturing	205,000	26.5
Hosiery and underwear manufacturing	7,000	24.3
Leather manufacturing	14,500	23.6
Boot and shoe manufacturing	25,000	22.0
Electrical manufacturing	70,000	21.5
Car building and repairing	15,000	20.8
Iron and steel manufacturing	400,000	20.7
Mining	125,000	20.4
Woolen manufacturing	100,000	20.3
Building materials manufacturing	6,500	18.7
Public employment	35,000	18.6
Rubber goods manufacturing	10,000	18.3
Silk manufacturing	20,000	18.2
Building trades (cities)	380,000	18.1
Paper manufacturing	23,000	16.7
Men's clothing manufacturing	100,000	16.7
Public utilities	115,000	15.9
Shipbuilding	105,000	14.7
Meat packing industry	200,000	13.7
Express employees	50,000	12.0
Steam railroads	1,829,000	12.0
Miscellaneous	705,000	17.6
Total	4,540,000	15.9

per cent reduced wages between 15 per cent and 19 per cent; that 30.4 per cent reduced wages between 10 per cent and 14 per cent, and that about 6.5 per cent reduced wages less than 10 per cent. This average wage reduction of 15.9 per cent for industrial workers throughout the country is still below the average reduction in the cost of living as reported by the United States Department of Labor, or 16½ per cent.

The outstanding reductions of wages that have been made in the last sixty days are among the public utilities, the building trades and the iron and steel industries. Nearly half of the total reductions in wages among the public utilities since the first of the year have been announced in the last sixty days. The available reports show that 109 utility companies, chiefly street railways, have reduced wages from 5 per cent to 40 per cent, the majority of the reductions lying in the range from 10 per cent to 20 per cent. No important strikes were reported following the wage reductions by these utilities. In the building trades there has been a continued voluntary action on the part of workers to accept lower rates of pay in the hope of increasing building activities. In some instances the

reductions reported and accepted were the second that have been made since the beginning of the year. The iron and steel workers have received the second and in some cases the third reduction since the beginning of the year. Wage reductions in this industry average about 20.7 per cent.

The table on page 361 shows the average wage reductions and approximate number of workers affected, distributed according to the key industries. Were the railroad employees, whose salaries were reduced approximately 12 per cent, taken out of this group, the reduction of the remaining 2,700,000 employees would average 18.7 per cent.

Effect of Brakes or Slipping Wheels on Tires and Rails

THE rapid acceleration and the deceleration now used on street railways have introduced some rather dangerous effects caused by the brakes or by slipping wheels acting on the tires and rails. C. P. Sandberg in a paper read at the Engineering Conference, London, 1921, treats of these actions in a very interesting manner. The energy absorbed by the brakes is immediately converted into heat and this heat must be dissipated chiefly by conduction into the mass of metal behind the slipping surfaces. The rate of such heat conduction is limited and if the rate at which heat is generated is greatly in excess of this limit a marked local rise of temperature will take place. If the surface temperature does not exceed the lower limit of the critical range of the material then no marked changes will occur beyond those due to mechanical deformation and abrasion, but if the critical temperature is exceeded, then in any ferrous material containing over about three-tenths per cent carbon very definite structural changes will occur. If the thickness of the heated layer is small in comparison with the whole mass, then when the heating effect ceases the surface will be very rapidly cooled by conduction, and if the initial temperature is high the outer layer of metal will be left in a very hard or martensite state. The surface hardening in itself would not result in any detrimental effects were it not for other phenomena that occur due to this action. A study of surfaces under this condition indicates that the thermal formation of a hardened outer skin is accompanied by the sliding of one surface over the other to a point at which both surfaces have become so heated that they are soft and plastic and tend to seize together at numerous points of contact. While so united the surface layers are dragged bodily forward, forming an overlap in advance of each area of adhesion and a tear behind it. The adhesion is only momentary and the surfaces are quickly dragged apart and recommence to slip over one another until sufficient rise of temperature and softening have occurred to cause another seizing. This alternate action of seize and slip probably occurs many times per second during the application of brakes and gives rise to the jarring or squeaking noises which accompany such applications. The result is to produce a series of surface tears or cracks upon both brake shoes and the wheels or rails, the cracks running in a direction at right angles to that of the motion and forming at regularly spaced intervals, evidently bearing a relation to the periods of seize and slip. These notches and rough surfaces put the material in a condition for very easy failure under ordinary load and increase the maintenance costs.

Letters to the Editors

Discussion on Association Reorganization

FOLLOWING the suggestions of President Gadsden and the executive committee of the American Association that the reorganization question be fully discussed, the ELECTRIC RAILWAY JOURNAL has solicited letters on the subject, both editorially and by a few personal communications and has offered space in its columns for the purpose. The following letters on this subject will prove of interest and value to the association in its study of the executive committee's recommendations.

BOSTON ELEVATED RAILWAY COMPANY

BOSTON, MASS., Aug. 18, 1921.

To the Editors:

I have read with considerable interest the contemplated action in regard to reorganization of the association. I have not as yet had an opportunity thoroughly to analyze the situation, but in compliance with your request I am expressing certain opinions which come to me in my first analysis.

I believe that the changes recommended by the executive committee are all for the best interests of the association and the policies adopted by the executive committee also seem to me to tend toward more constructive effort in the work performed throughout the year. One point which I did not notice mentioned and about which I feel very strongly is the desirability of limiting the committee work to that amount of work which can be accomplished effectively without burdening the member companies with undue requests for information. I think there has been a tendency in the past to provide a list of subjects for a committee which in view of the practical limitations of time has not resulted in concentration of the efforts of the committee on the amount of work which they can do well and thereby produce constructive results; in other words, spreading the work too thinly. This plainly is not in the interests of progress, but tends to an indifferent attitude and does not produce results.

I note the recommendation that individual members from non-member companies be not admitted. I appreciate the basis upon which such a decision was reached, but it seems to me manifestly unfair because, if temporarily the powers that be in control of a property feel that from a policy standpoint they do not desire to become a member, the association is prevented from availing itself of the ability and desire to work of a capable executive or officer of that company who might personally be inclined and be of value to the industry. It seems to me it is a discrimination. I can see where should a bright, energetic individual in a company become associated and interested in the work he might be the factor which would secure for the association the membership of his company.

As regards the question of admission of municipally owned railways, there is ample ground for divergence of opinion, but from a broad viewpoint consistent with modern conditions and for the good of the industry and its credit at large, it would seem to me as if here again it was short-sighted policy to close the doors against men many of whom have drifted from privately operated companies to the service and are not less capable

street railway operators. If they increase in numbers and feel this disbarment, there is likelihood of a separate organization, which certainly is not to the advantage of the industry as a whole.

As regards the training of potential presidential nominees, while in theory it may sound correctly, if by chance in the appointment to the lowest vice-president's position there comes a man who is not of sufficient caliber for constructive leadership it is not to the interest of the association to have him take the reins. On the other hand, while the arrangement provides that it is not absolutely necessary, it is unfortunate, both for the individual and for the effect it has in general, to be working along the line of succession and then have to break it. Too often in the past this arrangement has led to charges of clique control. An association as broad and far-reaching as the American Electric Railway Association must in all events be free from any such impression if it is to be of utmost service to this tremendous industry. The requirements of the time must dictate without any embarrassment about leaders.

I prefer the committee's recommendation of two junior living past-presidents with power of vote rather than all of the living past-presidents without power of vote, as I believe that the reorganization committee conclusions of the responsibility for management being placed squarely on the men elected is preferable to the indeterminate dropping in of living past-presidents. It would of course be wise to permit living past-presidents without vote to attend meetings out of courtesy and to secure the benefit of their experience, so that under the recommendation of the reorganization committee both advantages are possible, whereas under the recommendation of the executive committee they are not.

EDWARD DANA, General Manager.

EAST ST. LOUIS & SUBURBAN RAILWAY COMPANY
EAST ST. LOUIS, ILL., Aug. 26, 1921.

To the Editors:

In your report of the meeting of the executive committee of the American Electric Railway Association held on Aug. 8, you in effect asked for a discussion of the revised constitution as drafted by the executive committee. As the intent of the adoption of the revised constitution is to rectify past errors and is a very important step, it seems but proper and meet that there should be a thorough discussion so that those who have not had the advantage of attending the reorganization and executive committee meetings may be better enabled to form their opinions as to the merits of the proposed changes.

All in all, the revised constitution appears to me to be a real step in advance, which will enable the association to go forward on a more business-like and efficient basis than ever before.

I am particularly impressed with the underlying thought that members of the executive committee are in the future to do real work and take real responsibility. This is as it should be. No man should accept office who is not prepared to accept the work and responsibility. The revised constitution makes it very evident that the executive committee is a working, managerial committee.

Another helpful step is the formation of sub-committees with real responsibilities, which will report to the executive committee at its monthly meetings. Heretofore sub-committees have been few in number and there have been no meetings of the executive committee for

them to report to, except two or three times a year. Forcing a sub-committee to report to the executive committee once a month, and having it placed on record as to what its report is and what its recommendations are, puts the sub-committee members where they must take real responsibility and analyze the work assigned to them, at least to the extent that they may be able to make a report.

I am also much impressed with the new method of appointing the nominating committee long enough in advance of the annual meeting so that the nominating committee itself may have an opportunity to sound the sentiment of the membership, and the members may have an opportunity to express their views as to the future officers. This appointment of a nominating committee in advance appears most advantageous from every standpoint, and will especially remove any cause for complaint. Every one will have an opportunity to express his views in plenty of time, and the new officers elected will be as nearly as possible the choice of the membership at large, or if this is not the case it will be due entirely to the fault of the membership. Another factor is that nominations and elections have always taken place at the same meeting, and there has often been necessity for undue haste and the complication of finding out not only whom the nominating committee desired to nominate for officers but what timber was available. For these reasons and others, the adoption of the revised constitution will, all in all, be a real step in advance, but there are several sections which should, I believe, be given very thorough consideration.

The executive committee realized that although they had given very considerable thought and study to the revised constitution, there were possibly, and in fact probably, portions of the constitution which others, or even they themselves, might wish to change upon further thought or information. Accordingly the matter was left in such shape that amendments to the constitution can be modified or new ones moved and adopted on the floor of the convention, if desired by the convention. This action was taken premeditatedly and purposely so that the convention would not be forced to accept the revised constitution as drafted, but that, as finally adopted, it could and would be the sentiment of the convention.

ELECTION OF PRESIDENTS AND VICE-PRESIDENTS

Among the sections which provoked considerable discussion among the executive committee members themselves was the question of designation of vice-presidents. It has been our practice in the past to designate vice-presidents as first, second, third and fourth vice-presidents, and also as a rule to elect the senior available vice-president as president, move all the other vice-presidents up one notch and elect a new man as fourth vice-president.

The old or present constitution does not call for such designation, but it was perfectly constitutional and legal to follow this procedure. As a matter of fact, it has become so established by custom as to be almost obligatory on the nominating committee.

At the last annual meeting a resolution was passed to the effect that in the future the policy of the association should be to elect as president the man who was considered best fitted—taking all things into account—to lead us as president for the next year, regardless as to whether he had previously been a vice-president or had held any other office in the association.

But the underlying thought of the executive committee in adopting the portion of the revised constitution which covers this point was, as I understand it, that we should return to the old order; that is, that the regular routine should be to elect a fourth vice-president and promote each of the other three vice-presidents. The revised constitution does not say that this should be done, nor need it necessarily be done, but the new constitution has gone a step further than the old constitution ever did, in that the constitution itself calls for designation of vice-presidents.

In the discussion the executive committee brought out very definitely the fact that all of the executive committee were not agreed as to either what the constitution should say or what our procedure should be in the future. It was contended by the majority that in order to achieve the best results during his term of office the president should be one who had had past experience with the business of the association for say the past three years. The main contention of the minority was that the convention should be left absolutely free to elect as their president for the ensuing year the man who at that time was available and appeared to them to be the best man to lead them for the ensuing year. This may be, though not necessarily, absolutely contradictory to electing one of the vice-presidents to the presidency, and the main thought of the minority was that we should elect each year the man best fitted to be president for the ensuing year, and not elect (as *vice-president*) each year the man who we thought would in four years be the best available man for the presidency.

If it is the sentiment of the October convention that we should return to the old order and elect a fourth vice-president and promote the other vice-presidents, then the constitution, in so far as this part is concerned, should be adopted as written. If it is the thought of the convention that the membership should not be limited, by insinuation or otherwise, as to who at any future time should be elected president for the ensuing year, then the constitution as drafted should be changed and should state that there should be four vice-presidents *without designation*. This was the way the constitution read when it was recommended to the executive committee by the reorganization committee.

To state the matter boldly, this question may be said to resolve itself into whether we shall so arrange elections that a man shall be chosen president on account of his positive qualifications for the place or because his negative qualifications are not enough to disqualify him.

SHALL MUNICIPAL RAILWAYS BE ADMITTED?

Another point which brought forth considerable discussion was the question of admitting municipal railways to membership on the same basis as company members. This matter first came up last December at the Chicago meeting, at which time a committee was appointed to make a report as to the advisability of admitting municipal companies to full membership, there being a question as to whether or not the constitution provided for their admittance.

The committee took a referendum vote, as it were, among the members of the executive committee and prominent executives of the industry, some fifty altogether, and reported back that of those who had returned answers to the questionnaire, thirty-seven were in favor of admitting municipalities, and five were not in favor of admitting them.

When the matter came up in the reorganization committee some who had previously been in favor of admitting municipalities voted in favor of not admitting them, as, although those opposed to admitting municipalities were very few in number, they were most definite as to the mischief to be wrought to the association and the industry by admitting municipal railways to membership.

The result was that when the matter came up for final vote in the executive committee the vote was almost unanimous to exclude municipal railways from membership in our association. Judging from the replies received when the referendum was conducted, there is unquestionably a division of thought in our membership as to which is the proper course for the association to take. Those contending for the admission of municipal railways stated that due to the fact that executive or secret sessions of this association are now a thing of the past and that it is our policy to teach the truth openly and frankly, no harm could come to the association by admitting municipal railways, and that this frank, open-door policy would in the end be advantageous rather than otherwise. It was brought out that practically every act of ours is now open to inspection and that all and any data sent out by the association can be secured, if desired, by individuals or by municipal railways without being members, and moreover, that the association had nothing which it desires to conceal, but that it truly desires to acquaint the public and also the municipal railways as to facts.

Those opposing municipal railways being admitted to membership were just definitely opposed to municipal railways and therefore wanted none of them in any way connected with the association.

In this connection it should be understood that no member of the executive committee advocated municipalizing street railways, nor were any members of the executive committee in favor of such municipalization, but the minority were in favor of admitting such systems to membership on the basis that it was the better policy for the association and the industry.

The revised constitution as first drafted by the reorganization committee definitely admitted municipal companies to membership but the constitution was re-drafted, so far as this matter was concerned, before it was reported back to the executive committee, and as it is now drafted no municipal railway can be admitted.

It is possible that a number of executives not belonging to the executive committee who previously were in favor of admitting municipal railways have by this time changed their minds, as did some of the members of the executive committee, but unless a very large number have done so, the majority of prominent executives to whom the referendum was sent are still in favor of admitting municipal railways to membership. The original referendum showed that of executives not members of the executive committee twenty-three were in favor of admitting municipalities and two were opposed to it.

PAST-PRESIDENTS ON THE EXECUTIVE COMMITTEE

The revised constitution as first drafted by the reorganization committee and reported to the executive committee proposed that the two junior past-presidents should be members of the executive committee, *with vote*. The present constitution provides that all past-presidents shall be members *ex officio* of the executive committee, *without vote*, and the revised con-

stitution as finally left by the executive committee is practically worded as is the present constitution, that is, all past-presidents of the association are members ex officio of the executive committee.

The discussion regarding this matter was in no way personal but the reorganization committee reported in favor of limiting the membership of the executive committee to the two junior past-presidents only after considerable thought was given this matter. It is realized that past-presidents carry, even without vote, a very considerable weight in any discussion which may arise in executive committee meetings, and the newer members of the executive committee have a normal human tendency to accede to the desires of past-presidents, even though the thought of the new member is that such a course is not in keeping with his own present-day views as to what is best for the association as of today.

On the questions which came up for real discussion in working out the revised constitution, it was noticeable that past-presidents present, speaking broadly and generally, were in favor of continuation of past policies.

"AERA"

There was one question which brought forth considerable discussion in the reorganization committee, and that was the future policy of *Aera*. The *Aera* advisory committee was asked to make a report, and in their report they were very definite that *Aera* should be continued along the lines of the past, with the exception that it should broaden out and cover even more ground than was attempted in the past. This committee report was so definite that a large majority of the reorganization committee after hearing the report were in favor of continuation of *Aera* along the general lines of the past, with, however, the recommendation that duplication of articles appearing in or belonging to the technical press should be eliminated, and that we should co-operate with the technical press rather than be considered as a distinct competitor. The *Aera* advisory committee being naturally composed of members who have previously been prominently identified with *Aera*, and who were appointed due to the fact that they desired in general a continuance of *Aera's* policy, it was not in any way unnatural that this report should be favorable to the continuance of *Aera*. As to whether an unprejudiced committee not so closely identified in the past with *Aera* would have brought in the same report is, of course, open to question. The net result of the discussion, however, was that the situation was not changed and it was the thought that *Aera* should be continued, but substituting co-operation for duplication and competition. If this be carried out the solution will probably be acceptable to a great big majority of the membership. There is no doubt that there is a strong feeling on the part of a considerable number that *Aera* should not and cannot compete as a magazine with the technical press, but should limit itself to appeals to company section membership and to information and data which are needed by the industry but are not available through other sources.

So far as the constitution is concerned, no change was necessary, unless it was desired absolutely to stop publication of any magazine or bulletin, and the future policy of *Aera* rests with the executive committee through the executive secretary and the sub-committee on publications, under whose charge will come the preparation and publication of *Aera*.

Now, just one word in conclusion. I have written the above simply so that executives of member companies may give some thought before they arrive at Atlantic City as to just what we should or should not do in our new constitution. The association will, under the revised constitution, receive much benefit due to the executive committee in the future really functioning as business managers of the association, but the greatest good of all will be for the new constitution to reflect the thoughtful, analytical views of the membership.

W. H. SAWYER, President.

NEW YORK, Aug. 18, 1921.

To the Editors:

Unfortunately for the purpose of present discussion, I am unable to attach sufficient importance to the proposed changes in constitution and by-laws of the American Electric Railway Association to justify me in making any extended comment. Rules for the guidance of men of affairs, such as the proposed requirement for monthly meetings of the executive committee, seem arbitrary and are to be avoided in the by-laws of all corporations and associations like the one under discussion.

The success of the efforts which the association will put forth to benefit the industry supporting it will depend not so much on the form of organization as it will upon the substance of its leadership. The right kind of leadership will develop forward-looking policies that may eventually assist in the rehabilitation of an industry that is now all but financially bankrupt.

JAMES D. MORTIMER.

BROOKLYN RAPID TRANSIT COMPANY

BROOKLYN, N. Y., AUG. 23, 1921.

To the Editors:

The recommendations of the special reorganization committee of the American Electric Railway Association were discussed editorially in your columns on Aug. 13. It will be remembered that the proposals made by that committee affect only the work of the parent association. Meanwhile the discussion has caused attention to be directed toward the possible need for the organization of a similar committee to study the work of the Engineering Association.

It has been felt in some quarters that the Engineering Association could greatly increase its effectiveness if some things were done in the way of reorganizing its methods, somewhat along the lines which have been prepared for the parent body. The question of size of committees has assumed a prominent place in the minds of those who have given thought to this subject. At present the committees are fairly large, with from twelve to fifteen members on the standing committees. It is seldom that a full committee meeting is held. Perhaps the nearest approach to this was reached this year when eleven of the twelve members of one committee were present at a meeting.

The number of meetings which can be held is limited, first, by the difficulty in getting members to travel long distances and, second, by the cost of attendance, which is now a direct burden upon the member companies whose men are upon the committees. It is thought that this burden tends to restrict membership in committees to those companies both able and willing to bear the expense. This may tend to keep good committeemen from active participation in the work. Another handicap to large committees is the difficulty and expense in

providing copies of correspondence, and the correspondence of an active standing committee assumes large proportions. Again, the cost of preparation of reports in sufficient quantity to provide for the membership becomes a burden upon the unfortunate company whose representative happens to be a chairman. It is stated that one important report due to be issued this year required the constant work of two stenographers for two weeks.

The number of subjects assigned to standing committees is frequently too large, and even progress reports on many of them are not forthcoming. Fortunate indeed is the committee which can adequately report on more than three subjects.

The suggestion has been made that smaller committees should be the rule and that there should be more committees. For instance, the American Railway Engineering Association has five or six committees covering subjects which the Engineering Association attempts to cover by one standing committee. With smaller committees, each handling an important subject, there should be a much better opportunity for careful study of subjects and the reports on them could thus be treated more completely. As a matter of fact, the standing committees now have to divide into numerous sub-committees in order to get any work done, but this method divides the responsibility somewhat and often results in lack of production, with a tendency toward acceptance of sub-committee reports by main committees without careful study of details.

The task of assembling a report of any one of the large standing committees becomes a burden upon the chairman which consumes a great deal of time. Only the pride of the chairmen in having a creditable report keeps them from giving up the jobs in despair.

The matter of selection of subjects also seems to require a more careful consideration than has been given heretofore. Those subjects which are of the greatest practical value should have first consideration, and subjects which mainly call for theoretical consideration might well be assigned to individuals for treatment in monograph form. It is no secret that some of the best reports in the past practically have been the work of one man.

Many subjects cannot well be handled by large committees because of the lack of adequate information from member companies, who are generally becoming more and more adverse to answering questionnaires. Some better means for getting such information should be found, and perhaps the best way to get it is to employ a research engineer who can visit a sufficient number of properties to gather authoritative data covering a definite line of inquiry. Such a method of getting valuable and needed information would also tend toward increasing the use of association standards through the personal contact of the research engineer with the representative "local conditions" which now mitigate against the adoption of standards.

It is also thought that the committee reports should not all be dumped in a mass upon a busy engineer's desk about a month before the annual convention. He cannot possibly find time to digest them sufficiently to prepare suitable discussion, and one great failing now found is the lack of constructive discussion of reports on the floor of the convention. It has been suggested that the plan of having the reports printed in bulletin form and released to the technical press and printed in *Aera* as soon as they are prepared would be a great step

in advance. This is now done by the American Railway Engineering Association, and the plan seems worthy of study relative to applying it to the work of the Engineering Association. But in order to make it effective there should be more certainty of continuity of committee membership and committee activity. As it now stands, all active committee work halts about July 1 and remains dormant until about Jan. 1. In other words, from five to six months are practically fruitless so far as committee work and study are concerned and the hardest work has to be done in the late spring and early summer when the heat and regular work of the members conspire against good work.

The writer calls attention to these matters in the hope that your columns will be utilized for the purpose of discussing means which may be adopted to secure greater and better results from the activities of the Engineering Association, as the work of this allied association affects practically all branches of the electric railway industry and every possible step should be taken to make its work of the greatest possible service to the member companies.

R. C. CRAM,

Engineer of Surface Roadway for Receiver.

England's Method of Handling Railroad Labor Problems

THE British Railways were returned to the owners on Aug. 14, after having been under government operation since 1914. It is of interest to note the new method adopted by the owners and the labor organizations for handling labor problems. The plan involves a national wages board or board of final appeal, a central wages board, railway councils, sectional railway councils and local departmental committees. The plan applies to all employees in the transportation department from station masters and freight agents down, to all engineering and signal employees and to other employees outside the shops.

The National Wages Board is to deal with subjects relating to rates of pay, hours and working rules referred to it by the Central Wages Board. It is to be composed of six railway men, six employees and four public representatives, with an independent chairman appointed by the government. It is given twenty-eight days to reach a final decision on any subject. Strikes are not to occur during this period because of the dispute before the board.

The Central Wages Board contains an equal number of representatives from the employees and the railways and does the real work in adjusting labor problems. The Railway Councils are regional co-operative boards who deal with regional applications of national rules, etc. The Sectional Co-operative Councils are five in number for each regional council and deal with more restricted labor problems and represent different departmental groups in a given region. Local departmental committees are still smaller subdivisions of the regional organization, dealing with local rules and conditions in each department.

The keynote is equal representation in the subordinate boards of the employees and the railway operatives and the public is represented only on the national board. Regional and even departmental applications of national agreements are provided and this marks the great difference between the American and English method for handling railroad labor problems.

New Molding Material for Cast Welds

Blow Holes in Thermit Welds Are Eliminated by the Use of a New Molding Material and New Style Mold Boxes
The Material Is Furnished at Cost

A NEW GRADE of molding material for thermit welding has recently been developed by the Metal & Thermit Corporation, New York, which, as proved by extensive researches and practical experiments, when used in accordance with the regular thermit practice, will definitely prevent blowholes and assure sound welds. This new molding material has already been introduced in many of the larger railway shops. The new material, designated as "thermit molding material," is quite different from ordinary molding material, and in all thermit work either this or a substitute which has been tested and approved by the Metal & Thermit Corporation should be used. In view of the great importance of using this new molding material it is now being sold practically at cost.

The design of the new molding material is based on the theory that good silica sand will stand the heat of the thermit reaction very well and that the weakness in all molding material is the clay binder. Therefore, there should be as little clay as possible in the mixture, in order to make the mold more refractory and to increase its porosity. It is logical, therefore, that the use of a plastic clay has been selected instead of a fire clay, as formerly. The sand and plastic clay are ground together in a foundry pan or moller, with the intention of coating each grain of sand with a minimum thickness of clay. This has resulted in a good, clean molding material, which should be rammed hard in the mold, which will stand up well under the preheating flame and which is extremely porous to the gases generated in the mold, resulting in a sound weld with a very clean exterior. Although suitable molding material can be made by increasing the clay content slightly and mixing the clay and sand thoroughly by hand, it is not so good as that made with a smaller clay content in the foundry pan or moller.

The mixture now being used is composed of three parts clean, sharp silica sand (100 per cent of which should pass through a screen having a 0.03 in. square opening, and 40 per cent of which should be retained on a screen having a 0.012 in. square opening) mixed with one part Welsh Mountain plastic clay. These parts are first thoroughly mixed in the moller together with one-fortieth part glutrin by volume and sufficient water (one-twelfth part) to bring to the proper consistency. If mixed by hand, the sand and clay must be dried before mixing (care should be exercised not to subject the clay to a temperature higher than 400 deg. F.) and thoroughly mixed before adding the glutrin and water. The glutrin should be mixed with the water before being added to the sand and clay.

In case a plastic clay fatter than the Welsh Mountain be used, the mixing, of course, will have to be more thorough and less clay used. Welsh Mountain clay is being used in the present mixture because in carefully run tests it has proved to be the most refractory. The use of the new molding material necessitates harder packing next to the weld; in fact, the regular thermit rammer may be supplemented by the use, for instance, of a tool having an end $\frac{3}{8}$ in. x $1\frac{1}{2}$ in., so that the operator may be able topeen the sand next to the wax collar and the various patterns.

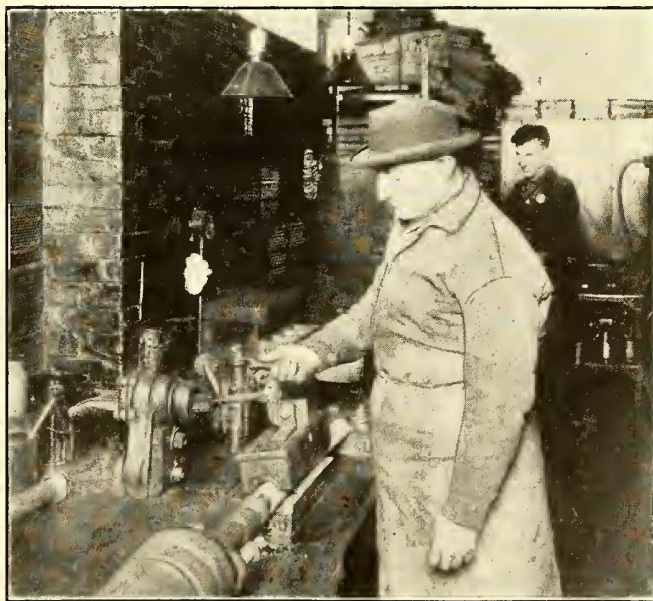
It is absolutely essential, in the production of sound

welds, to be sure that no loose sand exists in the mold when the thermit steel is poured. This is why very hard ramming is advocated, also why it is most important to blow out all loose material from the interior of the mold by putting the preheating burner in the riser before the heating gate is plugged and to be sure that no sand is detached by the operation of inserting this heating gate. The burner should be removed from the riser before plugging the heating gate, because otherwise it may detach some sand which could not be blown out after the plug is in place. The heating gate plug should be thoroughly dry; and, if it has been carried in stock for some time, it should be warmed before using.

By perforating the side and bottom of the mold box, the escape of the gases which pass through the molding material is greatly facilitated. Holes $\frac{3}{8}$ in. in diameter, spaced 3 in. or 4 in. apart, are sufficient. To facilitate the escape of gas from the bottom of the mold box, the mold should rest on blocks, not directly upon the foundry floor. As unnecessary molding material simply increases the resistance to the passage of gas, the mold box should be made as small as possible commensurate with safety. For example, in welding a 4-in. x 1-in. section, only about 4 in. of sand is necessary at all points, except, perhaps, on the pouring gate side. It is most important thoroughly to vent the mold box by forcing a rod or wire down at a number of points to within $\frac{1}{2}$ in. or so of the collar. Care should be taken that these do not touch the collar because such vent holes will fill with steel and will therefore not facilitate the escape of gas.

Device for Installing Hose Fittings

THE accompanying illustration shows shop-constructed apparatus used for the inserting of nipples and couplings in air-brake hose at the Thirty-sixth Street inspection and overhauling shop of the Brooklyn



APPARATUS FOR INSERTING NIPPLES AND COUPLINGS INTO AIR BRAKE HOSE

Rapid Transit Company. Previous to the construction of this apparatus the nipples and couplings were inserted by placing the hose in a vise and pressing the metal parts into the rubber tubing by hand.

The apparatus for holding the hose, as illustrated,

consists of two clamping blocks, the upper one of which is hinged. The opening and closing of this clamp are accomplished by means of an air cylinder, which forms a part of the equipment of the company's cars and is used for the locking and unlocking of automatic couplers. This air cylinder is connected to the top clamping block by means of a lever and its operation opens up or closes the clamping portion. The part which fits around the hose is lined with canvas to prevent injury to the hose and also to provide increased friction for clamping. With the hose placed in position it is held clamped by turning an air cock, which admits air to the air cylinder. The nipple or coupling is then fastened to a threaded piston of another air cylinder and by the use of a brake valve air is admitted in sufficient quantity to force the fitting into the end of the hose. The pressure and speed are regulated to suit conditions. The air cylinder used for this latter operation was constructed in the shop. By the use of this apparatus one man can fit the couplings and nipples into a hose in a very short time and the job is thus rendered very attractive as well as providing an efficient means for doing this type of work.

Power-Operated Signals

A NEW type of signal motor has been developed in France and is now marketed by Tyer & Company of London. With this type of motor, which is being tried out on many English railways and is used on French lines to a large extent, the power to operate the motor is obtained from two sets of six Leclanché cells in parallel. Current is applied only when the signal is being lowered and the signal is held "off" by a small battery at the signal box, so there is considerably less consumption of power than is generally thought. The motor is situated on the signal post at any favorable location and takes up an incased space 15 x 12 x 12 in. deep. The mechanism is tested to lift 120 lb. The voltage of the motor battery is ten, the starting current is 2 amp., this gradually increasing to 3½ amp. The resistance of the armature

is 0.14 ohms and that of the field is 0.205 ohms. The motor is readily adapted to be operated from power supply mains by changing the winding slightly. A detailed description of the Tyer motor is given in the *Railway Engineer* for August, 1921.

The power-operated signal is being used to an increasing extent because of its many advantages in the protection of the apparatus associated with its application. The advantages for such signals are: 1. There is no strain on the signalmen as there are no heavy weights to lift. 2. The accurate "on" and "off" position of the arm is assured. 3. No adjustment of wire is needed to meet changes of temperature. 4. Fewer wires are present on the tracks for men to trip over or to be covered. 5. The distance from the signal box is immaterial and the signal may, therefore, be fixed in the best position for the driver's view. 6. There is a reduction in the number of working levers because the signal may be controlled by a switch providing the latter be interlocked with the relative stop signal.

With the power-operated signal the source of power is at the signal and a line wire is run from the lever in the signal box to the signal. The wire is connected to a switch on the lever in the locking mechanisms, and when, and not until, the lever is fully reversed a contact is made which electrically connects a small battery in the signal box. This battery operates a relay at or near the signal post and the relay, when operated, permits a current from the battery which operates the motor on the signal. The signal arm, when it has been lowered to the "off" position, automatically cuts off the motor battery from the motor, and the arm is held in the "off" position by an electrically operated brake. When the lever has been pulled to reverse, the first movement back to normal will break the contact on the lever and release the electric brake on the signal lever so that the signal will at once go to the "on" position. It is usual to employ an electric repeater, controlled by contacts operated by the signal arm, to indicate the condition of the arm.

A. R. A. Mechanical Division Will Not Meet This Year

Postponed Meeting Has Been Permanently Put Off, but Reports of Eight Committees Which Were to Have Been Presented at the Meeting Are to Be Submitted to Letter Ballot

AT A meeting of the Association of Railway Executives held in New York, July 1, 1921, it was decided that there should be no meeting of the Mechanical Division of the American Railway Association this year. A meeting was to have been held in Chicago, June 29 and 30, but it was postponed. This action was decided upon after the following resolution had been adopted:

"Whereas in view of the imperative need for the exercise of all possible economy, it is

"Resolved, That annual or special meetings or conventions of all organizations under the supervision of this body be indefinitely postponed or curtailed in every possible way."

Following the decision of the general committee of the Mechanical Division

not to hold a meeting this year it was decided to submit through a letter ballot to the members the recommendations of the various committees which were to have been presented at the meeting in June. These reports include: (1) Specifications and tests for materials; (2) report on joint inspection of standard materials; (3) report of arbitration committee; (4) report on car construction; (5) report of committee on loading rules; (6) report on brake shoe and brake beam equipment; (7) report of committee on tank cars; (8) report on train brake and signal equipment.

The committee on specifications and tests for materials recommended a revision of the standard specifications for carbon steel axles for cars, locomotive tenders and engine trucks, also a revi-

sion of the present specifications for steel castings for cars and locomotives, combining these two into one specification. The committee further recommended that the association give serious consideration to establishing a definite time limit for revisions of specifications and other standards which will appear in the Manual, this limit to be preferably three years, during which no changes should be allowed except for reasons important to the interests of the association, and then only if the proposed changes received at least a two-thirds vote at the annual meeting of the division.

The committee on brake shoe and brake beam equipment reported that the subject of brake shoe key design and details involved in the fit of the shoe, head, face and key had been investigated and an examination of a large number of brake shoes on cars disclosed the condition of the keys being all the way down and still a loose fit. This indicated the desirability of a change in the key design. The committee submitted a new design of key

with a suggestion that this be tried out for further consideration. The proposed key is thinner at the point, and has a somewhat greater taper than the standard key, so that it becomes $\frac{1}{2}$ in. thick at a point $3\frac{1}{8}$ in. from the end instead of just under the head. The drawing shows a tolerance of $\frac{1}{32}$ in. in thickness, which is a practical working limit if the key is drop forged or rolled.

Iowa Association Program

THE program for the mid-year meeting of the Iowa Electric Railway Association, to be held in Waterloo, Iowa, on Sept. 15 and 16, has been tentatively arranged to include the following main topics of discussion at the meeting.

A paper on "Transportation" will be presented by Maurice A. Welsh, superintendent Waterloo, Cedar Falls & Northern Railway, Waterloo, Iowa. Frank R. Grant, Westinghouse Electric & Manufacturing Company, Des Moines, Iowa, will present a paper on "Dipping and Baking Armatures." R. J. Smith, general manager and engineer maintenance of way Tri-City Railway of Iowa, will read a paper on "Laying and Maintaining Track." The subject of a paper

to be presented by Herbert J. Connell, trial attorney Omaha & Council Bluffs Street Railway, Omaha, Neb., is "The Relation of the Claim Department to the Transportation, Track, Overhead and Mechanical Departments." A paper on the "Relative Maintenance Costs of One-Man to Two-Man Cars" will also be presented.

The exact place of holding the meeting has not yet been determined. This and further program details will be announced in a later issue.

National Safety Council

THE National Safety Council has decided to hold its annual convention in Boston, Mass., from Sept. 26 to 30. The national body recently received an invitation from the Boston organization, and after consideration agreed to make the Hub the scene of its meeting this fall.

The local safety councils in Massachusetts have just held a "safe roads" campaign in which several of the larger street railways took especial interest. H. B. Potter, assistant general manager of the Boston Elevated Railway, is president of the Boston branch of the Safety Council.

Nominating Committee Correction

DUE to error in transcription, the name of W. H. Heulings, Jr., of J. G. Brill Company, Philadelphia, was omitted from the list of the nominating committee of the American Association as printed in last week's ELECTRIC RAILWAY JOURNAL.

The full committee therefore consists of the following: J. H. Pardee, P. S. Arkwright, F. G. Buffe, W. A. Draper, E. C. Faber, Thomas Finigan and W. H. Heulings, Jr.

As noted last week, this committee is desirous of receiving suggestions from the members of names for the various offices to be filled. If the members assume that the executive committee of the future will be made up according to the revised constitution as proposed, there will be elected this year:

One president.

Four vice-presidents.

Six members at large from operating companies, with terms expiring, two in 1922, two in 1923 and two in 1924.

Six members at large from manufacturing companies, with similar terms.

One treasurer.

Judge Paroles Gibson

AS WAS noted previously in these columns, the defaulting bookkeeper of the association, W. O. Gibson, was to present himself for sentence on Wednesday, Aug. 31. When he did so, Judge Rosalsky, who had been advised of Mr. Gibson's efforts at restitution, read from a New York statute dealing with such cases. From this statute it appears that the judge is given discretion to place the defendant on probation, in case the defendant has made restitution or efforts at restitution that satisfy the aggrieved parties. President Gadsden of the association was placed on the stand, and after stating the steps Gibson had taken to make restitution said he was willing for the judge to exercise his discretion and place Gibson on probation with proper restrictions.

The steps which Gibson has taken toward restitution are, first, to give a check to the association for something in excess of \$5,800; and second, to make certain arrangements looking toward a settlement in the future of a substantial portion of the missing funds. This was apparently the maximum Mr. Gibson and his family could do, and it was considered advisable to place him on probation and allow him to make efforts to repay additional amounts, as he proposed.

Accordingly, Judge Rosalsky placed Mr. Gibson on probation for a period of fifteen years. He is ordered to report in person on the 12th of December of each year for fifteen years. He is ordered to report to the probation officer, either in person or by satisfactory communication, once each week, for a period of fifteen years. The court thus retains jurisdiction over the case during this whole time through the office of the probation officer.

American Association News

T. & T. Subjects Committee

THE Transportation & Traffic Association announces the following as its subjects committee to report to the convention on subjects for the coming year:

G. T. Seeley, Pennsylvania-Ohio Electric Company, Youngstown, Ohio, chairman; J. P. Barnes, Louisville Railway, Louisville, Ky.; J. K. Punderford, the Connecticut Company, New Haven, Conn.; C. E. Morgan, Brooklyn City Railway, Brooklyn N. Y., and Edward Dana, Boston Elevated Railway, Boston, Mass.

The committee desires suggestions from the members at large so that its reports will be truly representative of live subjects in the transportation and traffic field.

Valuation Committee Report Ready

THE American Association valuation committee held an important meeting at association headquarters on Saturday, Aug. 27. The report of the committee was completed and it is expected that it will be available in pamphlet form previous to the Atlantic City convention. The committee has made some important recommendations in the report which will be discussed at the convention.

Those present were Martin Schreiber, Public Service Railway of New Jersey, Camden, N. J., chairman; W. H. Sawyer, E. W. Clark & Company Management Corporation, Columbus, Ohio; J.

H. Hanna, Capital Traction Company, Washington, D. C., and W. H. Maltbie, United Railways & Electric Company, Baltimore, Md.

Engineering Subjects Committee

THE membership of the subjects committee of the Engineering Association has been announced as follows: L. V. Datz, American Cities Company, Birmingham, Ala., chairman; A. B. Stitzer, Republic Engineers, Inc., New York; C. H. Clark, Cleveland Railway, Cleveland, Ohio, and H. A. Johnson, Metropolitan West Side Elevated Railway, Chicago, Ill.

This committee is to report as usual at the convention on subjects for consideration during the coming year. The committee is asking for suggestions from the members at large to assist in formulating its report, so that subjects to be considered certainly will be those in which the members at large will be interested.

Entertainment Committee Ready

THE entertainment committee held a fine meeting at association headquarters on Saturday, Aug. 27. Under the direction of E. C. Faber, chairman, the committee prepared an entertainment program that will be sure to please the convention.

Some surprises are in store for members and the committee is to be congratulated on its originality in devising means for keeping everybody at the October convention happy.

Recent Happenings in Great Britain

More Evidence of Near Return to Normal in Railway Field—Glasgow Turns to the Bus—A. R. McCallum Quits the Underground

From Our Regular Correspondent

The railway and tramway undertakings are at last beginning to get over the results of the war. Possibly one cause of the great outburst of activity by the steam railway systems in the end of July and the beginning of August was the fact that the period of government control, which had lasted since the beginning of the war, was to come to an end in the middle of August. Then through the operation of the sliding scale wages have begun to come down in accordance with the fall in the official index figure of the cost of living, and coal is of course abundant since the miners' strike ended.

FOR the present holiday season the railway companies have offered passenger facilities better than any of the past seven years. Excursion trains and cheap tickets are in operation everywhere. The cheap fares, however, are only cheap by comparison with the present ordinary fares; absolutely, they are about the same as the pre-war ordinary fares.

Tramway facilities have also been increased, and at the time of the August bank holiday (which is a general holiday) more lavish services were run than for years past. The wages sliding scale for tramways was, however, more recently agreed to than in the case of the railways, so that the owners of the tramway undertakings have not yet begun to feel the benefit of lower wages. Within the last few weeks the index figure of the cost of living has ceased to fall—partly, at least, owing to the prolonged drought—and until it resumes its downward course wages will cease falling.

MOTOR VEHICLE IS POPULAR

Another striking development of the present holiday season is that of motor passenger vehicles. Last summer saw some activity, but now it may be said generally that all the most pleasant parts of England and Scotland are covered by services of motor omnibuses and motor coaches. The runs vary from an hour or two up to a duration of a week or more. The latter are of course organized tours. The main roads of the country are gradually being restored to good order, and more money is available for the purpose from the tax on motor vehicles. Petrol is abundant, and this form of holiday business is evidently profitable. In this connection it may be said that competition with tramways is only incidental, and of course tramway routes cover only a small proportion of the roads followed by the automobiles.

Hitherto the Glasgow Town Council has done nothing in the way of motor omnibuses, and has been content to work one of the most efficient and profitable tramway undertakings in the country. It is now proposing, however, to seek Parliamentary powers to operate motor omnibuses both inside and outside the city. Doubtless these vehicles will be auxiliary to and not competitive with the tramcars.

The British steam railway companies have had a set-back in an effort they

made in the end of July to get general powers to carry both passengers and goods by motor vehicles on the public roads. For some time there has been under the consideration of Parliament a government measure called the railways bill—a long and complicated bill for meeting the post-war situation after the railways are freed from state control. It provides for the amalgamation of the railways of the country into a few great companies, and sets up a great deal of new government regulation. The railway companies brought forward a new clause for insertion in the bill to enable them to operate motor vehicles on the highways. The road transport companies and firms and the omnibus companies as well as the private automobile interests took alarm at the threatened powerful competition and a fight was expected, but just when it would have begun the Speaker of the House of Commons ruled the proposed clause out of order as being beyond the scope of the bill.

He laid it down that if such powers were to be granted it must be by separate legislation. Whether the railway companies will promote such legislation remains to be seen. Despite the outcry that has been raised against the railway companies' proposal, they have a good case for it in at least one direction. That is the transportation of goods for comparatively short distances. They convey the goods by road from the consignor to a railway station, load them into a train, discharge them at another station, and then take them by road to the consignee.

FREIGHT TRANSPORTATION COSTLY

Where the railway haul is not long, this is a slow and expensive process compared with what it would be if the companies could transport the goods by road direct from the sender to the receiver. Of course that is what the road transport companies are doing now, so that the latter got a fright. They are now safe—for the present at any rate. Should the railway companies make another effort to get the powers they want, they will also be able to contend that in very many districts they are the largest local ratepayers.

It is not surprising to learn that the London County Council has decided to promote no bill in the next session of Parliament to authorize the construction of additional tramways. In recent years the great bulk of such proposals

have been rendered nugatory by the veto of the metropolitan borough councils. The highways committee of the Council also thinks that the Minister of Transport would report adversely on the schemes. The members consider that a remedy will not be forthcoming until there has been a complete and considered reorganization of the existing systems of passenger transport in the London area. The Council has already represented to the government the necessity of legislation to provide for the unified operation of local passenger transport undertakings in Greater London. Meantime the Council and the London General Omnibus Company have arranged an extension of the through-booking scheme between the tramcars and the omnibuses.

POWER-SAVING DEVICES BEING USED

The London County Council is now adopting experimentally on twenty-two cars a power-saving device which is reported to be in use on certain American tramways and is employed by the Metropolitan Electric Tramways in Middlesex. Its purpose is to grade the economy of the motormen in their use of propulsion current.

It is proposed the Birmingham City Council should seek powers in the next session of Parliament to run trackless trolley cars over any tramway route in the city. An example is given of a particular tramway which needs reconstruction. To reconstruct it would cost £95,000 at present prices, and the service would be run at a loss. To install the railless system would cost £54,000 less and there would be an estimated profit of £3,000 a year.

The ballot of the members of the Amalgamated Engineering Trade Union resulted in a majority in favor of accepting the employers' proposal for reductions in wages. Thus a strike has been averted. Reductions have been accepted by other unions also, so that there is some hope of the country being placed on an economic basis.

The dividends declared by the London underground railway companies for the half year ended June 30 last show material improvements as compared with recent half years, attributable doubtless to the increased fares. The London General Omnibus Company has also done better.

MR. MCCALLUM RESIGNS

A. R. McCallum, who two years ago, along with other officers of the London underground railway companies, visited the United States to make a study of electric traction conditions there, has resigned his position as chief assistant to the mechanical engineer for the underground railways in order to take up an appointment with C. P. Sandberg Brothers, consulting engineers, who are well known in America as well as in this country. Mr. McCallum, who is a B.Sc. of London University and was a pupil with Dick, Kerr & Company in their Preston works, has been assistant mechanical engineer to the underground railways for nine years.

News of the Electric Railways

FINANCIAL AND CORPORATE :: TRAFFIC AND TRANSPORTATION
PERSONAL MENTION

Another Week Lost

Discussion at New Orleans Believed,
However, Not to Be Entirely
Without Benefit

The City Commissioners of New Orleans have frittered away another week in conference with City Attorney Kirtledge without result. Meanwhile, testimony in the street railway case, in the Federal District Court, involving the right of the city to interfere with the receiver in the collection of an 8-cent fare, has been postponed by Special Master Chaffee, from Aug. 20 to Aug. 29. Postponement was made by Mr. Chaffee in the hope that the city and the New Orleans Railway & Light Company might be able to reach an agreement by compromise out of court.

The Ballard report, on valuation and rate making, was submitted to the Commission Council on Aug. 24 by Commissioner Maloney of the Department of Public Utilities, with the indorsement: "Respectfully submitted without comment."

Mayor McShane has at last taken a fling at solving the railways problem. He thinks his plan will make for the settlement of the matter, with some modifications, perhaps, by the city. Briefly stated, the McShane plan offers to help the railways secure \$5,000,000 of new money, said to be needed to replace present antiquated equipment, and allows the company an 8 per cent return on that amount. The Mayor is of opinion, however, that the property is worth only \$40,553,500 and not \$44,700,000, as fixed by the utility experts, called upon by the city to estimate its value, the last of whom was Mr. Ballard.

So as not to appear hostile to the company, Mayor McShane supplements these allowances in his proposed plan of settlement, with the further allowance of an 8 per cent return upon the difference between his estimate of the value of the property, namely, \$40,553,500 and that fixed in the Ballard report, viz: \$44,700,000, or \$4,156,500. This means an 8 per cent return on \$4,156,500, in addition to the 8 per cent return which he is willing to allow on the \$5,000,000 of new money to be borrowed. On the balance of the securities of the company the Mayor says he is only willing to allow the interest called for on the bonds, which varies from 4½ per cent to 7 per cent.

Under this plan Mayor McShane declares the company would be allowed a return of \$2,791,915 a year, as against a return of \$4,031,560 called for under the Chappelle plan, and \$3,129,000 and \$400,000 new money, called for under the plan of the Committee of Forty.

Commissioner Murphy, of the De-

partment of Finance, whose plan for the settlement of the tangle more nearly approaches that of the utility experts of national reputation, has been attending the daily executive conferences and has formed his own conclusions as to the prospects of these "talks" leading to a settlement. As a result he is insisting upon an immediate adjustment of the matter. In a published statement, Commissioner Murphy said:

If the surplus is protected and the rates of interest on all of the new company's securities are properly fixed by the Commission Council (which is one function of the rate making body) I am firmly of the opinion that an 8 per cent return on the agreed valuation offers greater protection to the public for constantly increasing and expanding the service without increasing rates and fares.

I stand willing, however, to accept any rate of return which will result in settling this problem along the lines of sound and correct principles. I believe, however, that no settlement, no matter how just or sound, can succeed without intelligent public understanding.

A conference was held on Aug. 25 and 26 by Mayor McShane and the members of the Commission Council with the executive committee of the Citizens' Committee of Forty. The meeting took place in the directors' room of the Hibernia Bank & Trust Company. R. S. Hecht, president of the bank, who was chairman of the conference, expressed the belief at the close of the meeting that the railway tangle was nearing a settlement, but beyond making this statement neither he nor the parties to the conference would disclose what had transpired. It is understood that a valuation of approximately \$44,700,000 was tentatively agreed upon by a majority of the conferees. Another meeting scheduled for Aug. 27 was called off.

Commissioner Maloney of the Department of Public Utilities, when asked whether the Ballard report or a report of some kind placing a valuation upon the property with an adequate measure of return, would come up for discussion and consideration at the Aug. 30 meeting of the Council, replied that nothing in this direction would be attempted until some agreement had been reached as to a fair valuation of the property. Unless a compromise as to valuation and rate of return was effected with the railway company, the matter would be left to the courts for settlement. The outcome would be unsatisfactory in that event, to both the railway and the people.

Special Master Chaffee has again consented to postpone taking testimony until Sept. 5. This is taken to show that nothing was accomplished during the week at the daily conferences attended by the Mayor, the City Commissioner, the City Attorney and such members of the executive committee of forty as dropped in from time to time.

Another Municipal Route

First of Important Crosstown Lines
in Detroit Placed in Operation
by City

The first of the big crosstown lines planned as part of the municipal system of street railways in Detroit, Mich., was put into operation on Aug. 25, when cars were started on the Charlevoix-Buchanan route over a distance of 10½ miles with a single track mileage of 21. This car line now serves districts not touched by car lines heretofore. A portion of the line had been in operation previously. One-man safety cars are now being operated, but it is intended to replace part of these cars with Peter Witt type cars under contract to be delivered in the fall. At the same time the Van Dyke Avenue line was put into operation giving service to a residential section which had been without car service. The Van Dyke line is a tributary to the new crosstown line.

On the day service was started on the new line the suit started last September by residents of Eliot Street to enjoin the construction of the municipal line on their street, one of the thoroughfares traversed by the new crosstown line, was dismissed by Judge Dingeman in the Wayne Circuit Court.

The city now has cars operating over 32 miles of lines. The short sections which served a purely local patronage are now connected into a network of lines serving the east side. The crosstown line connects this system with the west side of the city and further service will be installed in a few days by opening up the Moran-Palmer lines.

It is further reported that other extensions of the municipal lines will be announced as soon as the day-to-day agreement lines constructed by the Detroit United Railway are taken over by the city, after the report of the Board of Arbitration which is to convene again on Sept. 6. The effectiveness of the city lines depends to a great extent upon the Fort Street and Woodward Avenue lines now operated by the Detroit United Railway, which are still the subject of controversy and which the city needs to reach the heart of the city.

Future Service to Be Discussed

Although the Ottawa (Ont.) Electric Railway has two more years under its contract to furnish transportation service to the residents of the city, agitation has been renewed looking toward the enactment of a service-at-cost arrangement. The Board of Trade is making provisions for a general field day some time in September, when the whole question of future service by the railway will be discussed.

Service Resumed at Des Moines for State Fair

Company Guaranteed Against Loss—Terms of Proposed New Franchise Grant Now Available

The most important development in the railway situation at Des Moines, Ia., during the week ended Aug. 27 was the temporary resumption of railway service after a three weeks' shutdown, to continue only for the period of the Iowa state fair. The resumption of service came as a result of a petition filed with Judge Wade of the federal court by attorneys for the State Agricultural Society. The petition was not filed until after officials of the Agricultural Society had made a trip to Chicago to go over the situation with Mr. Harris and his associates.

ALTHOUGH bus men had made emphatic claims as to their ability to take care of the fair crowds, officials of the fair, even with assurance of supplemented service of shuttle trains on the Rock Island Railroad, were doubtful of the outcome and fearful that with inadequate transportation facilities attendance at the fair would be seriously curtailed.

In filing their petition with Judge Wade the fair officials agreed to guarantee the Des Moines City Railway against financial loss during the period of the fair. City officials took no part in either the filing of the petition or the hearing upon it.

EMERGENCY SERVICE ONLY

Judge Wade acted solely upon the emergency presented by the fair officials and in making his order for the temporary resumption was specific that it would cover only the period of the fair and that service was to cease on Sept. 2. Officials of the railway were agreeable to the proposition and service was resumed on the afternoon of Aug. 26. The service was restored on exactly the same basis as was being given at the time it stopped on Aug. 3. Fifty-nine cars are in service and owl cars are being run.

Immediately upon the resumption of railway service the buses lengthened their routes to take in the railway loop downtown. When the railway service was stopped buses shortened their routes in the downtown section. No attempt was made by the Des Moines City Railway to give special service to the fair grounds, only six cars being operated on that line. The main desire of the fair officials in securing the return of the cars was to insure Des Moines people being transported from their homes to the downtown section. Buses are handling the bulk of the business to the fair grounds, almost any vehicle that would run being converted into a so-called truck. One transfer company has put several of its motor driven moving vans into service to and from the fair grounds.

Judge Wade's order for the restoration of service during the period of the fair is as follows:

A strong appeal has been made by officers of the state and the directors of the department of agriculture for the state of Iowa, that an order be made providing for street car service during the state fair. The bondholders have been consulted and in view of the importance of service during the fair, not only to the people of Des Moines but to the people of the state, it is my judgment that the cars should be operated.

Of course if there should be a deficit in such operation it must be paid by some one. I have no power to require the bondholders to pay any deficit and therefore I only have power to authorize service on condition that if there should be a deficit in actual operating expenses it shall be paid by the agricultural association or some others. It is my hope that with the demand for service during the days of the fair enough of money can be collected for fares to pay actual expenses. I am advised that those interested are willing to guarantee any loss in operation.

Although it is impossible to establish more than the minimum service that was in operation at the time of suspension and to avoid any possible misunderstanding the order is made positive that such service shall immediately suspend upon the close of the fair and remain suspended under the order heretofore made pending foreclosure.

It is ordered and adjudged that the receivers shall as soon as practicable restore the service as near as practicable to that which was suspended under order of this court on Aug. 2, 1921, such restored service to continue only until the close of the state fair and not later than Sept. 2, 1921.

This order is conditioned upon a guarantee to be approved by the receivers, by some individual or organization to pay to the receivers any deficit in actual cost of putting the cars in operation and operating the same as herein required.

Des Moines bus operators began a campaign of "education" for the people of Des Moines on Aug. 25 with a meeting at the Grant Club of representatives of improvement leagues, women's clubs, trades unions, Rotary, Kiwanis and Lions' clubs, and all members of the City Council. This meeting was the first of a series which is to be held to sell the bus idea to the people of the city. C. W. Lyon, attorney for the Motor Bus Association, was the speaker at the meeting and advised his hearers that with an assurance from the City Council of a lease of life the bus owners would within ninety days furnish service entirely adequate, and that an organization capitalized at \$1,600,000 could be formed to finance operation.

Mr. Lyon explained that the present emergency is an entirely unfair test for the buses and that the people could not expect men with \$300,000 invested to provide the financial backing necessary to establish proper service when they had no assurance that they could continue to operate. In answer to a question he claimed that provision had been made which would insure keeping the streets open when snow was on the ground.

The promise of the bus men, in the event they are awarded a franchise grant, was briefly as follows:

Furnish necessary motor buses within sixty or ninety days from date of signing the contract.

Operate at a 5-cent fare for one continuous ride.

Carry children under twelve years at half fare.

Carry high school children for 2½ cents between hours of 7:30 a.m. and 4:30 p.m.

Carry children under six years free when accompanied by parent.

Carry policemen and firemen free.

Operate hourly owl service at a 10-cent fare.

Comply with insurance and bonding laws. Operate on light and heavy lines as considered necessary.

Comply with speed regulations.

Pay reasonable street repair taxes.

Standardize buses.

Welcome inspection looking toward proper heating, lighting and sanitation.

Maintain proper garage and repair shops.

Make convenient routing schedules.

Bus operators claim there are now approximately 110 buses in service and that during the time the street cars were out of service the buses were carrying more passengers per day than the Des Moines City Railway did during the month of July.

A number of buses from other cities have been shipped in during the past week, but on the other hand some of the buses which have been in service and which were pronounced the most satisfactory of those running have gone out of service because of the need for repairs.

Negotiations between the Des Moines City Railway and the special committee from the Retail Merchants' Association looking toward a new franchise to end the Des Moines railway difficulties were expected to be resumed early in the week ended Sept. 3.

F. C. Chambers, general manager and operating receiver, who at the request of the merchants' committee returned to Chicago for further conference with A. W. Harris relative to certain features of the franchise, returned to Des Moines on Aug. 26, but did not bring the completed draft of the franchise with him. The draft had not been received on Aug. 27, but was expected by early mail on Aug. 29.

NEW FRANCHISE GRANT APPEARS

After the franchise as submitted by the Harris interests is threshed out with the committee, it will then be presented to the City Council. Mr. Chambers said to a representative of the ELECTRIC RAILWAY JOURNAL on Aug. 27 that the provisions of the franchise would not be made public until after the draft had been presented to the City Council.

The draft which will be under consideration during the week just ended has been changed considerably from the one submitted to the Merchants' Association committee ten days ago.

After being sifted and favorably passed upon by the special committee of the Merchants' Association the draft of the new franchise for the Des Moines City Railway was presented to the City Council on Aug. 31. At the special session of the Council it was ordered referred to the corporation counsel for advice and it is expected to be back in the Council's hands for first reading by Sept. 2.

There must be three readings by the Council and then if favorably acted upon the measure must be upon file for one week before election is called. It must then be advertised for thirty days before being voted upon by the people.

The principal provisions of the franchise are the sliding scale of fares to start at 8 cents straight, to be lowered or raised as the financial condition of the company warrants. Before the fare is reduced from 8 cents, \$6,000,000 in accrued interest and debts must be met. It is proposed to amortize this sum over a five-year period. No dividends will be paid on the common stock until fare has been lowered to 7 cents, when 4½ per cent will be paid. If the fare goes below 5 cents 6 per cent will be paid.

Provision is made for reducing fares as earnings warrant, to ten tickets for 75 cents, ten for 65 cents and ten for 55 cents between reductions so as to even the fares mentioned above. Protection from bus competition is provided by a clause which prevents buses from discharging passengers within 1,000 ft. of car track unless passengers have entered the bus at a distance greater than 1,000 ft. from the tracks.

Children's fares during specified hours of school days are to be 2½ cents. Regular children's fares are to be half of the adult fare. The owl car fare is to be 10 cents. One-man cars are to be allowed. The railway will be permitted to operate a supplementary bus system.

All disputes are to be settled by an arbitration board appointed by the Iowa Supreme Court to consist of three district judges chosen from outside Polk County. In the event the franchise is passed the power facilities will be increased and 132 cars will resume service.

Indications are that the franchise will have the united support of the business and commercial organizations.

The City Council on Aug. 31 renewed for a period of one year the bus licenses which expired on Sept. 1 on condition that they may be revoked at the will of the Council.

Railway Contends Commission Has Jurisdiction

That the Michigan Utilities Commission should be the one to judge and not Judge Cross of the Ottawa County Circuit Court is the opinion of the Michigan Railway as expressed in a hearing on Aug. 29 of the injunction proceedings brought by the city of Holland and Park township against the Michigan Railway. The court has reserved decision.

The arguments submitted were on an order to show cause in the case of the city of Holland against the Michigan Railway to prevent the railway from raising its rate of fare from 15 cents to 35 cents between Macatawa and Holland in alleged violation of franchise agreements. Holland City and Park township were represented by City Attorney Charles H. McBride of Holland.

The suit was the result of the Michigan Railway's boost in fares to 3 cents a mile granted by the Michigan Utilities Commission. It is claimed under the franchise held by the Michigan Railway and under an agreement with

the city of Holland that the city fares are fixed at 5 cents and rates between Holland and Macatawa at 15 cents for the round trip.

The hearing was to determine whether the Michigan Railway should be permitted for the present to collect a 35-cent fare between Holland and Macatawa.

Saginaw Has Bus Offer

Company from Detroit Makes Proposal, but Wants Practical Assurance Against Possible Loss

Officials from the Wolverine Transit Company, Detroit, have presented to the city of Saginaw, Mich., through the Council and directors of the Board of Commerce a plan whereby Saginaw is to be given high-class motor bus service on streets formerly traversed by cars of the Saginaw-Bay City Railway, which suspended service three weeks ago when the company was placed in bankruptcy through a petition filed in the United States district court for the eastern district of Michigan.

The transit company men offered to invest \$90,000 as a down payment for thirty motor buses, the Board of Commerce, city government, or some other organization to take it upon itself to sell 15,000 books of 240 tickets at \$10 a book. They also offered universal transfers, indemnity insurance, limited to \$10,000 for one person or \$30,000 one accident. Before they will make any effort to secure the buses the promoters want the tickets disposed of and the money retained by a trustee to be appointed by the city or the Board of Commerce to be used to make the final payment on the buses. According to the plan, the trustee will be given a mortgage on all the equipment to assure faithful performance of the contract and to assure that they will abide by the necessary rules and regulations to govern schedules, rates of fare, etc.

The Council as usual after hearing the proposition called in the commerce directors and then gracefully slipped out from under. It was a case of good politics with them so the voters would not blame them for any poor service which might result if Saginaw has its usual severe winter. The commissioners believed the Board of Commerce could handle the proposition better than the city's duly elected representatives.

At this time it is known what the commerce body will do in the matter, but if the members can raise the \$150,000 advance fares it is expected that the bus company will go through with its part of the program. In the event that they fail in giving the necessary service, and decide to quit operations, the trustee can foreclose the mortgage and then the city will have the buses to operate.

The transit officials did not ask to have the jitneys restrained from operating on the streets asserting they could get the business because of the class of their equipment and the service they proposed to give.

Those present at the meeting almost to a man asserted that not in the history of the street railway had service been on such a high plane as during the last year, but at no time did the Council or the Board of Commerce ever make any effort to sell tickets in advance to help the electric road.

Residents have now begun to realize the railway officials were sincere when they said they had to have additional compensation with jitneys eliminated or they would be forced to suspend for good and the friends of the railway are predicting that the electric cars will not operate again until the people get a real taste of what it means not to have street cars.

Municipal Railway Has Competition from Eighty Buses

With every indication that the various jitney interests in the city of Seattle, Wash., intend to carry their legal battle for existence and reinstatement to a finish, city officials are preparing to do everything in their power to terminate as soon as possible the protection to the sixty-five buses owned and operated by members of the Sound Transit Company and those operated by the company itself. All others have been off the city streets for nearly two weeks, with the exception of six, which are being permitted to run as feeders to the Seattle Municipal Railway in the district north of Cowan Park, where there is no railway service.

The Sound Transit Company's buses, however, are permitted to operate without interference of the city until the State Supreme Court decides whether it will grant a rehearing of the McGlothorn suit, in which the temporary injunction against the city was obtained, and under protection of which the buses are operating.

Officials are preparing, if possible, to prevent continuance of the McGlothorn temporary injunction if the jitney interests should carry their litigation to the Supreme Court of the United States.

The Sound Transit Company is now operating nine jitneys in addition to those owned by the sixty-five protected intervenors in the McGlothorn suit, making a total of approximately eighty buses operating in the city.

Pasadena Would Curb Jitneys

The Pasadena Chamber of Commerce is in favor of an ordinance forbidding the operation of jitneys on electric railway routes, the establishment of an auto feeder by the Pacific Electric Railway, the granting of universal transfers and a 5-cent fare throughout the city. These sentiments were voiced recently in a communication to the Board of City Directors embodying the recommendations of the Chamber's committee on transportation. This committee has been at work on Pasadena's transportation problems for some time now. The matter will be considered again at some future date.

\$250,000 Terminal to Be Built in Salt Lake City

Decision has been made to build a joint terminal of the Bamberger Electric and the Orem Railroads, and the work of erecting the first and most important unit of this interurban terminal, at the corner of South Temple and West Temple Streets, Salt Lake City, Utah, will begin within a short time. The architects, Young & Hansen, have been directed to proceed at once to the formation of detailed plans and specifications upon which bids can be prepared for contractors.

Tentative plans call for the expenditure of more than \$200,000, including the cost of the excavations and cement work already completed. The building will probably be of steel and cement construction, with a frontage on West Temple Street of 192 ft. and a South Temple Street frontage of nearly 100 ft. The building will be three stories in height, and the ground floor will be set apart for stores and station room, while the upper floors will be devoted to offices for the electric roads and for other tenants.

The site of the present temporary terminal will not be needed for the new building and will continue to serve as a station until the work is completed.

Service at Cost Rejected

The City Council of Vancouver, B. C., rejected, on Aug. 22, the proposed service-at-cost franchise covering the railway, light, power and gas services of the British Columbia Electric Railway. The matter was shelved for six months, but there is nothing in the way of opening fresh negotiations.

The company is now at liberty to reinstate its application to the government of Canada for a Dominion charter, bringing it under the jurisdiction of the Board of Railway Commissioners, action which public bodies generally have approved.

The rejection of the franchise can be attributed to criticism by citizens generally and the lack of any feeling that a franchise was necessary. The fares under the present franchise are 5 cents, but the company is allowed by special permission of the city to charge 6 cents until July 1, 1922.

Seattle's Mayor Favors Trolley Bus

In a letter to the City Council recently, Mayor Hugh M. Caldwell recommended the use of the trackless trolley for First Avenue and First Avenue South, replacing existing street-car tracks, and obviating necessity of large expenditures for new rails in connection with the contemplated paving there. Mayor Caldwell said:

According to our last street railway report, it is costing us about 28 cents a mile for our street car system. If these figures (18 cents a mile for the trolley bus) are correct, you can see that there would be quite a saving by installing the trackless trolley on First Avenue. The cost of installing the trackless trolley on First Avenue would be much smaller than in the case of a new line or extension, for the reason

that the trolley poles and cross wires and one trolley wire each way are already in place.

The estimated cost of renewing trackage on First Avenue from Pine to Atlantic Street is \$200,000. That amount has been included in an extension ordinance now pending in the City Council for betterments to the Municipal Street Railway.

Best Way to Fair—Traction

The best way to the best state fair is by electric railway. So think five lucky prize winners of a recent letter-writing contest on "Why is the traction the best way to the best state fair," started by the Illinois Traction System, Peoria, Ill. The champions of the railway had to rhapsodize in not more than 200 words and the winners found it difficult with that limitation to give suffi-

Our Patrons Say It's "THE BEST WAY TO THE BEST STATE FAIR"
Here is the prize winning letter

The Prize Winners
FIRST—Josephine K. Madden, Springfield, Ill.
SECOND—W. L. Parsons, Peoria, Ill.
THIRD—Mrs. Sada V. Black, Urbana, Ill.
FOURTH—John Milton Campbell, Decatur, Ill.
FIFTH—James M. Campbell, Decatur, Ill.

THE PRIZE:
1st—\$100 in Cash
2nd—\$50 in Cash
3rd—\$25 in Cash
4th—\$10 in Cash
5th—\$5 in Cash

Low Rates-Frequent Trains
ILLINOIS STATE FAIR
Springfield-AUG. 19-27
ILLINOIS TRACTION SYSTEM
(MCKINLEY LINES)

PRIZE-WINNING LETTER ADVERTISEMENT

cient praise to the electric carrier. The contest closed on July 31. It attracted great attention. Hundreds of letters from Illinois flooded the contest department, while many were received from states far off. The first prize was won—yes, by a woman, Miss Josephine K. Madden, Springfield, Ill. A woman always knows a good thing—a street railway.

Reduced Wages in Muskogee.—A 10 per cent wage reduction was put into effect on the lines of the Muskogee (Okla.) Electric Traction Company. As the scale now stands it is the same as it was a year ago. Since last spring traffic on this property has fallen from 350,000 to 240,000 a month. Though the fares were increased to 8 cents last year, Manager Cutlip has announced that the revenues have fallen off about 40 per cent.

James Dalrymple, manager of Glasgow Tramways, and R. J. Howley have been called in as experts to advise the Croydon Town Council as to the future of their municipal tramways.

Wages Adjusted on Seattle Municipal Railway

All wage differences between the trainmen of the Seattle (Wash.) Municipal Railway and the City Council were amicably settled recently when the budget committee changed the classification of motormen and conductors and granted them the same monthly compensation as that paid to policemen and firemen. This action was taken at the request of the trainmen, representatives of whom protested against the proposed 25-cent cut in wages of railway employees previously agreed upon by the Council. The plan adopted will work a reduction in the railway payroll, but not so large a one as the original 25-cent flat decrease would have effected. With the \$10 deduction already made in the salary of firemen and policemen, trainmen will now receive the following rates of pay: new men, \$135 a month; after one year's service, \$145; after two years, \$150; and after three years, \$155.

Figures compiled by D. W. Henderson, general superintendent of the railway, show that a saving of only \$60,254 a year will be effected in payrolls of the railway by placing the trainmen on the same salary basis as firemen and policemen, instead of the daily scale of from \$4.75 to \$5.25 now in effect. Mr. Henderson's figures show that under the present day wage scale, trainmen receive 59.375 cents an hour on the \$4.75 basis, and 65.625 cents an hour on the \$5.25 day scale. Under the new schedule they will receive 56.250 cents an hour, at \$135 per month, as beginners; 60.417 cents an hour at \$145 after one year; 62.5 cents an hour at \$150 after two years, and 64.583 cents an hour on the basis of \$155 a month after three years.

The actual payroll of the trainmen under the day wage is now \$88,905 a month; under the new monthly schedule it would be \$86,432 a month, a decrease of \$2,476, or 2.785 per cent. The total payroll per year under the present scale is \$2,163,449, and on the monthly salary basis it will be \$2,103,195, or a decrease of \$60,254. The new wage scale becomes effective in January, 1922.

Wheeling Men Accept Wage Cut

The employees of the Wheeling (W. Va.) Traction Company have accepted a wage reduction of 10 per cent, and the company has abandoned its one-man cars, which were placed in operation following the refusal of the men at first to accept the reduction. The reduction in part was accepted at the third vote. Last spring, when the wage agreement expired, the company insisted on a 10 per cent cut. The men flatly refused. The case went to arbitration and the board's finding was in favor of the men. The company, bound by the decision, then asked the men to accept voluntarily the 10 per cent reduction in wages. When the men first refused the company placed one-man cars in operation on the interurban lines.

Bus Service Unreliable After Trolley Quit

The city authorities of Bartlesville and Dewey, Okla., have joined in a petition to the State Corporation Commission asking it to assume jurisdiction over automobiles and jitneys operating on the hard surfaced highway between those two cities, a distance of about 4.5 miles.

Formerly an electric railway operated in Bartlesville and an interurban line to Dewey. Jitneys were permitted to compete with the railway and it was compelled to ask for higher fares. In July, 1918, the commission raised its fare to 7 cents between points in the city and its environs, and 14 cents between Dewey and Bartlesville. The jitneys then cut their fare to 10 cents. Unable to meet this competition the railway, about two years ago, was compelled to suspend operations. Since that the citizens of Bartlesville and Dewey have had to rely on automobiles and jitney service.

The mayors of the two cities, joining in the petition, state that between 250 and 300 people, who live in Bartlesville, work in Dewey and a similar number, who live in Dewey, work in Bartlesville. These people require regular and responsible transportation operated at certain periods. The petitioners state that so many automobiles are engaged in transporting passengers that none can afford to run on schedule and give adequate service and that, on this account, citizens are greatly handicapped and placed at large expense and great inconvenience.

The petition asks the commission to assume regulation of jitneys, to authorize one or more responsible individuals or corporations to operate automobile lines upon regular hourly schedules, to require license fees and place the owners of the lines under bonds for \$1,000 and to make them responsible for loss of life or property, and to limit the maximum fare to 25 cents.

The commission, as yet, has never assumed jurisdiction over jitney traffic in Oklahoma. A date for the hearing of the case has not yet been set.

Interborough Employees Buy Homes

Interborough Rapid Transit employees are evidently solving the housing problem in their own way. According to a recent announcement of the United Citizens' Home Committee, members and directors of which are Interborough employees and whose object is to obtain property for the erection of homes for its 14,000 members, forty-five lots on Bronxwood Avenue, between 229th and 231st Streets have been purchased.

According to S. H. Kowitz, secretary of the committee, the lots will be distributed among members of the organization, and, following out the co-operative arrangement, each member interested in the enterprise will pay 25 per cent of the cost of the building and will own his lot outright. Each house will

contain five, six or seven rooms. The cost of construction is placed at \$800 a room.

The United Citizens' Housing Committee was incorporated under the laws of New York State January last.

Property Owners Assume Cost of Paving

In an order issued on Aug. 25 the Wisconsin Railroad Commission has required the Milwaukee Electric Railway & Light Company to extend its double track on Center Street, Milwaukee, from Sherman Boulevard to Fifty-first Street, a distance of about one-half mile. The commission points out in the order that in reaching this determination it is acting on the inference from the facts presented that the company will not be held to the usual track area paving cost demand, since contracts for the paving of the street have been let and the abutting property owners have already been assessed for the entire cost of the paving exclusive of street intersections.

The commission admits that the immediate prospective revenue from the extension in question would hardly warrant it in ordering the extension, were the company under obligation to meet the usual requirements with respect to paving. The work on the extension is to be completed on Dec. 1, 1921.

The extension was petitioned for by the city of Milwaukee and a hearing in the case was held on July 5. The city then submitted general evidence regarding the growth and development of the neighborhood to be served by the proposed extension and the company submitted, among other data, estimates of the cost of construction and operating the extension. The proposal was made that instead of constructing the track extension requested, the service be supplied by means of trackless trolley.

Estimates showing the comparative cost of constructing and operating the two types of service were submitted by the company. While the commission thought that the trackless trolley has an important field and hoped to see a fair trial of this type of operation in the near future, it was not convinced that the test should be made at this point. It said in this connection:

We believe the trackless trolley has an important field and hope to see a fair trial of this type of operation in the near future, but we are not convinced that this test should be made at this point. The trackless trolley has not been demonstrated in this vicinity or under conditions similar to those existing on Center Street. If it should not prove satisfactory, the pavement would have been laid and the cost of constructing the tracks and cutting through this pavement would be enormously higher than the cost of constructing them now.

Furthermore, it is expected that the tracks on this part of Center Street will be connected up with the tracks east of the Chicago, Milwaukee & St. Paul Railway after the tracks of the latter have been raised and the Center Street Subway completed. Center Street will then become a long cross-town line and there may be need for its extension yet further west. The construction of the tracks can now be made in advance of the pavement at a minimum of expense to the railway and we feel that under all the circumstances the experiment with the trackless trolley should not be made at this point.

News Notes

Aquatic Sports Provided by Railway.—The Charlottesville & Albemarle Railway, Charlottesville, Va., has built a swimming pool, 300 ft. by 90 ft. adjoining Jefferson Park. The pool cost \$20,000 and has added greatly to the traffic which is being handled on the Jefferson Park line.

City Seeks to Recover Damages.—The City of Covington (Ky.) has brought suit against the South Covington & Cincinnati Street Railway Company, to recover \$18,950 for the resurfacing of Madison Avenue between the tracks. This is the first step in a legal battle to determine whether the traction company is liable for the cost of this improvement. The city contends that the contract with the traction company requires that they pay for the maintenance of the street between the tracks.

Intensive Campaign for Business Successful.—The Minneapolis, Northfield & Southern Railway, Minneapolis, Minn., made a 202 per cent increase in freight business in July, 1921, over July, 1920. W. R. Stephens, assistant to the president of the road announced. Of this increase, 66 per cent was in new milk business. Passenger business of the railway showed a gain of 39 per cent in the same time. Mr. Stephens said the gain was due to increased service, the organization of a freight department and "going after the business." Since July 17, passenger volume has been benefited by the reduction in the price of the fare to 2½ cents a mile.

Bus Rights Should Be Only Temporary.—The Philadelphia (Pa.) Rapid Transit Company has explained its policy with respect to the building of an extension to the plant of Sears, Roebuck & Company. It wants any rights which may be granted for the operation of buses between the plant and its lines made for only a temporary period. Some months ago the railway applied to the city authorities for a franchise on the boulevard from Ramona avenue to Old York road. While it recognized that transportation service was needed it realized that for many years such service must be rendered at a loss to the operating company. The ordinance introduced in Councils at the suggestion of the company, was so amended by Councils that when passed and signed by the Mayor its terms were impossible of acceptance. While the matter is in this state the company feels that such certificates as are granted by the Commission should be temporary in their nature and subject to cancellation when and as adequate transportation facilities are provided by railway in co-operation with the city.

Financial and Corporate

Appointment of Receiver Asked for I. R. T.

**Creditor With Claim of \$57,074 Seeks
to Keep Lines Intact—Equipment
Debt \$3,000,000**

The American Brake Shoe & Foundry Company has filed an equity suit in the United States District Court at New York asking for the appointment of a receiver for the Interborough Rapid Transit Company. Action was taken shortly after the stock market closed on Aug. 27.

Claiming \$57,074 long overdue, the foundry company declares the Interborough has more than \$3,000,000 in floating indebtedness besides other huge outstanding obligations. The \$3,000,000 debt, including materials, equipment, taxes and supplies, the complainant states, is now overdue and the Interborough unable to pay.

The complainant declares that certain creditors are pressing for payment, that suits threaten, that executions may be levied on the equipment and property of the defendant, and that there is grave danger the Interborough may thereby be deprived of the use of its equipment and rolling stock. It also is alleged that for the benefit of the public and the creditors it is desirable that the operation of the subway and elevated lines be kept intact.

Frank Hedley, president of the Interborough, said the company had not yet agreed to the appointment of a receiver and hoped to avert it by obtaining a one-year extension on obligations which mature on Sept. 1 and by the "further indulgence of its general creditors." For two weeks, according to a representative of the Interborough, it has been trying to obtain renewals of \$38,144,000 in 7 per cent notes, which fall due Sept. 1.

These notes were issued in September, 1918, by J. P. Morgan & Company and the War Finance Corporation. Recently the Transit Commission on representations that there was no other way to avoid a receivership approved an extension of the notes for one year at 8 per cent. On Aug. 6 the Interborough sent letters to holders of record urging that the notes be renewed on these terms. It was said at the Interborough offices that a majority of the holders had given their assent, but not all.

President Hedley's statement follows:

Saturday the American Brake Shoe & Foundry Company filed a creditor's bill in the United States Court for the Southern District of New York on its own behalf and on behalf of all creditors of the Interborough Rapid Transit Company, who may join in the suit, asking that a receiver be appointed in order that all creditors may be treated alike and that there may be no multiplicity of actions brought by creditors and noteholders in different courts.

The Interborough company has appeared in this suit, but it has not yet filed its answer or consented to the appointment of a receiver. It has twenty days in which to answer, and during that time it is hoped that all of its notes maturing on Sept. 1 next will have been extended for a year, and with further indulgence of its general creditors a receivership may yet be averted.

If, however, it shall become necessary ultimately to have a receiver, the filing of the bill this forenoon confers jurisdiction upon the court which is now administering the affairs of several other traction companies. It is believed this course will be of advantage to all interests involved.

The filing of this bill does not change the situation as to the extension of the three-year notes.

The application was heard before Judge Mayer on Sept. 1. Counsel for the railway company admitted that the company was unable to pay its notes and requested an adjournment. The court allowed this request and set Sept. 8 for continuing the hearing in the case.

Exclusive of those operated by the Brooklyn Rapid Transit Company, all of the subway lines in the city of New York are operated by the Interborough, and the lease of the Manhattan Railway covers the Second, Third, Sixth and Ninth Avenue elevated lines. The application states in this connection that altogether the subway system comprises 47 miles of railroad and 146 miles of single track and that the elevated lines cover 37 miles of railroad and 130 miles of single track.

Accidents Increase in 1920

Accident figures in 1920 on the railroads in New York City show a decrease of 37 per cent over 1919 in the number of persons struck by cars and a reduction of 11 per cent in the number of persons picked up by car fenders. Still, in the total number of mishaps including delays the 1920 figure of 35,250 is 16 per cent greater than in 1919. The comparison follows:

	1919	1920
Persons struck	1,431	892
Picked up on fenders	171	152
Boarding and alighting	1,101	724
Car collisions	644	531
Vehicle collisions	3,367	2,816
Derailments	3,897	3,623
Equipment troubles	10,861	11,215
Other accidents	2,270	2,101
Other delays	7,936	13,196
Totals	30,278	35,250

\$35,859 Profit in Seattle in July

The report of the Seattle (Wash.) Municipal Railway for July shows a profit of \$35,859, but without deduction of \$70,250 for bond redemption. Mayor Hugh M. Caldwell said:

While a profit is shown in the report, a notation explains that nothing has been set aside for bond redemption. This amounts to \$70,250 a month. At the present rate, we will have to go on a warrant basis again, probably on February 1 and set aside all receipts to meet the \$833,000 redemption charge due on March 1 next, the first payment on retirement of the \$15,000,000 purchasing bonds. The monthly charge of \$56,719 for depreciation, however, has been made in these figures, although that sum has not actually been set aside.

Readjustment of Capitalization Approved

The stockholders of the North American Company, New York, N. Y., on Aug. 26 voted in favor of increasing the authorized capital stock of the company from \$30,000,000 to \$60,000,000, to consist of 600,000 shares of 6 per cent cumulative preferred stock of a par value of \$50 each, and 600,000 shares of common stock of a par value of \$50 each, and also voted in favor of the issue of one share of such preferred stock and one share of common stock in exchange for each share of the present outstanding stock of \$100 par value.

Following the special meeting of the stockholders, the directors declared quarterly dividend No. 1 of 1½ per cent (75 cents per share) on the new preferred stock, and dividend No. 1 of 1½ per cent (75 cents per share) on the new common stock, both dividends payable on Oct. 1 to holders of record of Sept. 15. Dividends of 1½ per cent each on the new preferred and new common stock are equivalent to an annual rate of 6 per cent as compared with 5 per cent heretofore paid on the present stock of like par value.

The plans for the changes in the capitalization of the company were reviewed at length in the ELECTRIC RAILWAY JOURNAL for July 16, page 110.

Eight per Cent Stock Offering Successful

The customers'-stock-ownership campaign conducted by the Public Service Corporation of New Jersey recently terminated with a record of 20,700 shares of preferred stock sold. The story of the 8 per cent stock offering was told in detail in the ELECTRIC RAILWAY JOURNAL, issue of June 4.

Officials consider the sale a very successful one. They report that most of the stock was bought by the working classes and that initial payments were not withdrawals from savings accounts. It was also learned many shares were sold outside of the state.

I. C. C. Authorizes \$2,200,000 Issue by Electric Line

The Interstate Commerce Commission has authorized the Waterloo, Cedar Falls & Northern Railway, Waterloo, Ia., to issue \$2,200,000 of general mortgage 7 per cent gold bonds to be pledged with the United States as collateral security for \$1,885,000 in loans from the United States; to issue and sell at par for cash \$700,000 of common stock; and to issue lease warrants or notes aggregating \$132,159 in connection with the fulfillment of equipment. Of this \$700,000 of stock proposed to be issued \$207,000 is to be issued and sold at par to meet current liabilities. The proceeds of the entire issue are to be used as follows:

1. For funding maturities, \$547,126.
2. For paying open accounts, \$18,674.
3. For cash payments on new suburban passenger cars, \$37,000.
4. For holding in the treasury for capital expenditures, maturing interest, and other proper purposes, \$97,200.

Line Formerly Leased Wants Property Distributed

The Eighth Avenue Railroad, New York, N. Y., has brought suit in the New York Supreme Court against the Sixth Avenue Railroad, Job E. Hedges as receiver of the New York Railways, and others. The Eighth Avenue Railroad contends that a lease negotiated more than twenty-one years ago with the Metropolitan Street Railway as operator of the Sixth Avenue Railroad ceased upon the appointment of Job Hedges as receiver of the New York Railways, successor to the Metropolitan Street Railway.

It is alleged that the Eighth Avenue Railroad leased to the Metropolitan Railroad on Nov. 23, 1895, all of its railroad and other property for ninety-nine years, effective Jan. 1, 1896. In accordance with the lease the plaintiff alleges that it is a tenant in common with the defendant in connection with the ownership of such property known as the "Church Farm," bounded by Vesey, Chambers, Greenwich and Dey Streets and West Broadway. It maintains that this is the only property it owns jointly with the defendant.

The plaintiff alleges that it is entitled to possession equivalent to one-half and that the lease consummated for the use of the property involved ceased on Aug. 1, 1919, the day Federal Judge Mayer designated Job Hedges as receiver of the New York Railways, then leasing the Sixth Avenue Railroad.

A judgment for an immediate partition and distribution of the property is petitioned by the claimant.

Valuation Figures Under Fire in Merger

Opposition to the valuation basis proposed by the new Indiana Electric Corporation marked the opening of the Public Service Commission hearing on Aug. 26 on the corporation's petition to acquire seven Indiana utility companies and issue securities. The corporation's figures were based on the seven-year price average of 1914-1920, but counsel for cities participating in the hearing objected that the average was too high because of war prices.

The commission ordered the corporation to make a valuation based on the ten-year price average, without committing itself to the average unit price theory. Counsel for the corporation contended that the seven-year basis was fair because of fundamental economic changes resulting from the war, which would obtain for an indefinite period. The corporation also proceeded with a view to determining value on the reproduction cost new basis, but during the hearing Commissioner Barnard, who presided, indicated that the commission was not bound to accept this theory. After several expert engineers were heard, the hearing went over for a week. Most of the evidence had to do with the Merchants Heat & Light Company of Indianapolis and the Indiana Railways & Light Company of Kokomo.

Companies participating in the proposed merger are: The Merchants Heat & Light Company, Indianapolis; the Indiana Railways & Light Company, Kokomo; the Wabash Valley Electric Company, Clinton; the Putnam Electric Company, Clinton and Cloverdale; the Valparaiso Lighting Company; the Elkhart Gas & Fuel Company and the Cayuga Electric Company. Plans for the merger include the establishment of a large power plant on the Wabash River in Vigo County. The Joseph H. Brewer interests, which acquired the Merchants Heat & Light Company, Indianapolis, in 1914, are backing the merger.

\$60,000,000 Terminal and Electrification Plan Disapproved

The application of the New York Central, the Cleveland, Cincinnati, Chicago & St. Louis, and the New York, Chicago & St. Louis Railroad Companies for authority to erect a passenger terminal in Cleveland has been denied by the Interstate Commerce Commission. That body said:

We are not persuaded by the evidence now before us that the terminal problem has received adequate consideration in the public square plan either from the local or the railroad point of view, that this plan is compatible with the public interest, in its present form, or that we ought, by granting the certificates of public convenience and necessity which are sought, to lend our sanction to the enormous expenditure of capital which the plan involves.

The commission added that it was possible a further presentation of evidence might lead to a different conclusion.

The proposed station was to cost \$60,000,000. The tracks were to pass 30 ft. below the street level at the Public Square. All tracks within the terminal limits were to be operated by electricity and the electrification of the steam lines was to extend beyond these limits over the trackage to be provided along the existing right-of-way. It was intended to have a system of station tracks for the interurbans.

Financial News Notes

Fresno Interurban Reports Loss.—The Fresno (Cal.) Interurban Railway after deducting interest charges, rentals and taxes reports a net corporate loss of \$7,721 for the year 1920. The accumulated deficit at the end of the year amounted to \$59,523.

Discount on Bonds Large.—The Public Service Commission of Indiana has authorized the Interstate Public Service Company to sell \$184,000 of 5 per cent first and refunding gold mortgage bonds at 75 per cent of par. The bonds are of a 1913 issue.

Interurban Confers With Commission on Suspensions.—Attorneys for the Ohio Electric Railway, Springfield, Ohio, have discussed with members of

the Ohio Public Utilities Commission the necessary steps to be taken to discontinue service on some branch lines, but no applications have been filed yet to vacate the Defiance branch.

Shore Line Tracks Will Be Removed.—The tracks between Old Saybrook and East Lyme, property of the Shore Line Electric Railway, New London, Conn., will be torn up. This removes all hope that traffic might eventually be renewed. West from Saybrook Junction, as far as Guilford, the tracks will remain undisturbed for the present.

\$1,500,000 of Notes Placed.—The Havana Electric Railway, Light & Power Company, Havana, Cuba, announces that it has sold to its bankers, Speyer & Company, \$1,500,000 of five year 7 per cent gold notes dated Sept. 1, 1921. The issue is secured by deposit of \$3,000,000 of the company's general mortgage 5 per cent bonds.

Order Entered for Discharge of Receiver.—The final order in the case of the New York Trust Company against the West Virginia Traction & Electric Company, Wheeling, W. Va., praying for the release of Joseph D. Whittemore as receiver for the utility has been filed with John H. Conrad, deputy clerk of the United States Court for the Northern district of West Virginia. This order was received from Judge W. E. Baker at Elkins, and called for the discharge of Mr. Whittemore as receiver for the company and also for the cancellation of his bond. The case is now closed. It was heard first in this city before Judge Baker on May 5, 1921.

\$1,401,000 of Bonds Offered.—Tucker Anthony, New York; Robert Garrett Sons, Baltimore, and Brooke, Stokes & Company, Philadelphia, are heading a syndicate which is offering an issue of \$1,401,000 Utah Light & Traction Company 8 per cent first mortgage collateral bonds due 1934 at 99½, to yield slightly more than 8 per cent. The bonds will be guaranteed both as to principal and interest by the Utah Power & Light Company, parent concern of the Utah Light & Traction Company. They are secured by the deposit of an equal principal amount of Utah Light & Railway 5 per cent consolidated mortgage bonds due 1934.

Would Have Water Works Line Carry Passengers.—Citizens on the line of the mile-and-a-quarter municipally owned trolley line from the Twin City lines to the water filtration plant, which is in Anoka County adjoining Minneapolis, are agitating for passenger service. The line is utilized now for freight service to the plant. A former agitation was quieted when the city's legal department ruled against it because of the liability involved. The residents now want some arrangement made with the Minneapolis Street Railway to operate the line. The company believes the revenue would not pay the cost of operation. This line operates one block over the tracks of the local company in Minneapolis.

Traffic and Transportation

Wheeling Decision Stands

I. C. C. Sees No Reason Why It Should Change Its Finding in This Important Case

The Interstate Commerce Commission, in a decision just made public in the case of William Wylie Beall vs. the Wheeling (W. Va.) Traction Company, has affirmed the findings made in its original report. Irrespective of the terms of incorporation of the railway, the commission is convinced that the company is now rendering an interstate interurban business, the charges for which are within its jurisdiction. The case is considered a fundamental one, so much so that the National Association of Railway & Utility Commissioners was granted leave to intervene. Commissioners Campbell and Eastman dissented.

In its original report, referred to in the *ELECTRIC RAILWAY JOURNAL* for April 23, page 789, the commission found, among other things, that the interstate passenger fares of the Wheeling Traction Company for the transportation of passengers between Steubenville, Ohio, and Wellsburg, W. Va., and between Steubenville and Weirton, W. Va., were just and reasonable fares, and that the intrastate fares of the company for the transportation of passengers in intrastate commerce between Steubenville and Brilliant, Ohio, were unduly preferential to intrastate passengers, unduly prejudicial to interstate passengers, and unjustly discriminatory against interstate commerce. In consequence it prescribed intrastate fares which would remove such preference and discrimination.

The contention of the petitioners as stated upon reargument was that the traction company renders a strictly street-railway service, over the charges for which the Interstate Commerce Commission had no jurisdiction. They pointed out that defendant had no station buildings along its line, did not do a freight business in the manner in which steam roads do, and had no through routes and joint freight rates. In support of their contention the petitioners cited the decision of the Supreme Court in the Omaha case.

The commission says it has not attempted or asserted the right to regulate the fares of an electric railway for travel within a municipality. As stated previously, the commission found no reason to modify the finding stated in its original report to the effect that

The interstate passenger fares of the Wheeling Traction Company . . . between Steubenville and Wellsburg, and between Steubenville and Weirton are just and reasonable fares for interstate transportation over defendant's lines between those points; and that the maintenance of intrastate fares . . . between Steubenville and Brilliant lower than the just and reasonable interstate fares has resulted and will result in undue prejudice to persons

traveling in interstate commerce over defendant's lines in the state of Ohio and between points in the state of Ohio and the above-mentioned points in the state of West Virginia; in undue preference of and advantage to persons traveling intrastate over defendant's lines between the points here involved in Ohio; and in unjust discrimination against interstate commerce.

We further find that, whether the aforesaid passenger fares pertain to transportation in interstate commerce or to transportation in intrastate commerce, the transportation services are performed by the defendant under substantially similar circumstances and conditions.

Mr. Eastman said that he approached the case with the conviction that the activities of the commission should be confined, so far as the law permitted, to matters of national consequence. According to him the electric railways in the present case did not possess the "characteristics of an interurban line" in any greater degree. He said that no one else except the Wheeling Traction Company manifested serious concern for the protection of interstate commerce. According to Mr. Eastman the concern of the railway was clearly a matter of revenue. He said in conclusion:

I am unable to find in the Interstate Commerce Act any intent of Congress that we should have power to raise the intrastate fares of electric railways which happen to be engaged to some extent in interstate commerce, as most of them are, merely because of a belief that such fares are lower than they ought reasonably to be and in the absence of evidence that the free course of interstate commerce is in any substantial way obstructed or hindered. The complaint should be dismissed.

Seven-Cent Fare to Make Municipal Line Self-Sustaining

Announcement was made on Aug. 20 by the Transportation Commission at Toronto, Ont., regarding the new rate of fares that will be in force on the railway when the city takes over the Toronto Railway and merges it with the Toronto Civic Railway. Instead of a straight 5-cent fare the commission has fixed the rate at 7 cents cash for adults, or four tickets for 25 cents and sixteen tickets for \$1, or fifty tickets for \$3. Under the latter rate the cost of each car ride will be 6 cents. The night rates for all passengers will be 15 cents cash. As for children's fares, infants in arms will be carried free, as now, but for all others irrespective of age, not exceeding 51 in. in height, the rate is 4 cents cash or seven tickets for 25 cents.

In making the announcement the commission pointed out the increases did not provide for the rehabilitation of the system, which would be a gradual process. The commissioners said that, in considering the increases, they had been guided by the terms and conditions of their appointment, which provided that they should fix such tolls and fares as would be sufficient to make all transportation facilities self-sustaining.

Discontinuance Threatened

Lansing May Lose Railway Service Unless Return Is Allowed to the Ten-Cent Fare

At a conference on Aug. 24 between city officials of Lansing, Mich., and representatives of the Michigan United Railway, John F. Collins, vice-president and general manager of the company, declared that unless a fare increase is granted service in Lansing will have to be suspended. Mr. Collins favors a cash fare of 10 cents, with four tickets for 25 cents. The present rate is 6 cents cash, with nine tickets for 50 cents.

The four principal cities in which the company operates are Jackson, Battle Creek, Kalamazoo and Lansing. In June, 1920, the company increased its fares in all of these cities to 10 cents cash, with four tickets for 30 cents, and 5 cents for children. The increased fares were put into effect in Kalamazoo, Lansing and Jackson by order of their City Commissions, and in Battle Creek by order of the City Commission upon recommendation of the State Utilities Commission. Battle Creek authorities asked the State Commission for advice as to what fares Battle Creek people should pay and the State Commission recommended the 10-cent fare with four tickets for 30 cents and 5 cents for children.

In Kalamazoo, after the City Commission had decided on the higher fare, it submitted the case to the State Commission for similar advice, and the State Commission ordered the higher fare for Kalamazoo.

These fares were later reduced to 6 cents cash, nine tickets for 50 cents, 5 cents for children. This reduction was made originally by the City Commission of Lansing. The railway showed the Commission that it was already losing money and that this reduction of fares would increase its losses. The Commission took the view that the reduced fares would increase the volume of traffic and result in larger earnings than had been possible under the 10-cent rate.

Since compelled to adopt these lower fares in Lansing, the railway felt that it would not be just to its patrons in Kalamazoo, Jackson and Battle Creek to ask them to pay a higher fare than the people of another city were paying, so it decided to put in the same reduced fare in all four cities and in good faith await results.

In the meantime the Jackson City Commission engaged five men to investigate the affairs of the company, audit its books and determine the value of the property used in the service of this and other cities. Kalamazoo referred the matter to the State Commission. Lansing, however, insisted upon going it alone.

For the year ended May 31 the company lost in these cities the following:

Lansing	\$55,587
Battle Creek	92,131
Kalamazoo	97,744
Jackson	157,643

\$403,105

Indianapolis Takes Warning from Des Moines

President of Council Says Repetition of Folly of Des Moines Would Retard City Ten Years

Indianapolis is another city confronted with the jitney problem. It appears more than likely, however, that Indianapolis will not repeat the folly of Des Moines and Saginaw. It is true that negotiations for a settlement of these problems in Indianapolis have been in a deadlock for several weeks, but at conferences during the week ended Aug. 27 it appeared a contract may be made between the city and the company fixing the regulations over the company to take the place of those provided in the franchise surrendered by the railway in June under the terms of a law enacted by the last Legislature.

AT THE conference Russell Willson, president of the Council and chairman of a Council committee which investigated jitney bus and railway problems in Des Moines, Sioux City and Kansas City, read a list of recommendations concerning the local problem which he made to the Council at the last meeting. The recommendations urged the Council to take steps toward regulating the jitneys, but not until after it has been assured that the railway and the city are to come to an agreement as to the city regulations over the company.

Mr. Willson thought that jitney regulation should include provisions to prohibit jitneys from operation in streets with railway lines, to compel jitney operators to put up indemnifying bonds and pay higher license, and to compel them to follow a specified schedule and route. Proposals were made, it was understood, which can not be agreed to except by the full board of directors of the Indianapolis Street Railway and the City Council. It seemed likely that several conferences will take place at which the various proposals will be thrashed out before a full announcement is made as to the points under consideration.

A definite understanding has been reached to attempt to fix the regulations of the city over the company by a contract between the city and the company, Corporation Counsel Ashby said. At the last conference, held several weeks ago, the company representatives, through their attorney, apparently turned down the city's proposal to fix regulations by a contract, in favor of the alternative—that they be fixed by ordinance. The city favored the contract, Mr. Ashby brought out, because it desired the rights and authority of the city over the company to be fixed permanently and not be left to continual bickering between the company and the city.

Mr. Willson's statement and recommendations to the Council follow in part:

From the committee's investigation, as detailed in the report submitted to the Council, it is my profound personal opinion:

1. We are not concerned primarily with either the welfare of the railway or the jitney bus. If regulatory legislation for the jitney bus is necessary, it should not be viewed in the light of relief for, or aid to, the railway, but purely and solely as a matter of benefit to the public—to the city—and to its individual citizens.

2. The situation existing between the railway and the city is very similar to the condition in Des Moines. The Indianapolis Street Railway has surrendered its franchise and is operating under an indeter-

minate permit issued by the State. It has been the city's endeavor for some weeks to reach an understanding with the railway as to the future authority of the city over the company, and to induce the company to continue to perform some of the obligations and conditions of its previous charter.

The company recently stated to the city that it would enter into no contract with the city. The city has insisted that the obligations to be performed by the company under its old charter should be renewed by contract, as the company's contention, at the time the law was passed permitting it to surrender its charter, was that it was concerned only with the valuations, rate of fare, etc., and that it would continue to meet its other charter obligations even if operating under an indeterminate permit. Therefore, the city especially feels that the company should now, by contract, make good these assertions. The city also feels that the rights and authority of the city over the railway should be fixed and determined once and for all by contract, so that there will not be continual bickering and travail from day to day. Even though the city's rights are defined by law, what the city wants is a practical, working agreement between itself and the company without the probability of facing an appeal to the state public service body on any and every order that the city may make.

Therefore, it seems to me that if we are to consider the matter of regulation of jitney traffic, especially if it is to be considered at the railway's request, and as a means of enlarging the company's receipts, the company shall at the same time consider the city's demands; and if jitney traffic is regulated by ordinance in such a way as to offer relief to the railway, this shall be effected at such time as the company agrees, in terms, to contract as to its duties and obligations to the city.

3. It is impossible for a railway in any city to operate in successful competition against unrestricted and unregulated jitney bus traffic. The buses take the short hauls, and leave the long and unprofitable hauls to the company. They operate upon railway streets, often upon pavement paid for exclusively by the railway, and in snowy weather they operate exclusively on the car tracks after they have been swept by the railway. In fact, without regulatory laws their operation, it seems to me, constitutes entirely unfair competition, and assuming that a railway is adequately serving the community the unrestricted operation of jitney buses constitutes a real menace to that community's welfare.

4. This does not mean that a railway should be relieved from meeting fair and legitimate jitney competition. If a car company's service is adequate and it is meeting just obligations toward the city, it is my opinion that while such adequate service continues, and while the company continues to meet its obligations toward the city, the city should see to it that there is no jitney competition on railway lines. In my estimation that is the one regulation that essentially makes for fair competition. The other measures for regulation, such as a bond, schedules, licenses, etc., are for the benefit, convenience and safety of the public generally. The provision restricting jitneys from railway lines is primarily one for the benefit of the company. If parallel with car lines, it is fair competition and the passenger may choose the conveyance he prefers.

5. It is entirely bad for a city to allow unregulated, unrestricted jitney bus traffic; not only from a standpoint of unfair competition with its street car company, but especially from the standpoint of the public, the city and the safety of the individual.

6. If eventually motor transportation is entirely to supplant trolley transportation in the city, the jitney or motor bus has not as yet reached the stage of perfection necessary therefor.

7. Properly to serve the public it is necessary, in my estimation, that the jitney bus be required to file a bond covering liability for personal injuries, to follow a definite schedule and a definite route, to be driven by one who meets certain requirements as to age and ability to drive, to pay an adequate license to the city, and not to be overloaded. In addition to the above, at such time as the city is guaranteed adequate railway service and the company, by contract, agrees to continue to perform those of its former charter obligations which the city sees fit to retain, and the city can be reasonably assured that there will be no increase in rate of fare, I believe that jitney competition, by ordinance, should be immediately removed from streets containing car lines.

Mr. Willson says that both Kansas City and Sioux City having seen Des Moines as a horrible example, have avoided making the same mistakes; Kansas City by regulating its jitney traffic and Sioux City by annihilating its jitneys. He says the committee found that each city had its own peculiar problems, just as has Indianapolis. The chief peculiarity at Indianapolis was that there is now no contract or working agreement, or basis of any kind existing between the company and the city. This, of course, is not true in any of the other cities.

In Mr. Willson's judgment, the situation in Des Moines is deplorable, and is one of the worst conditions which could befall any American city. In his estimation the visitation upon Indianapolis of such a condition as now exists in Des Moines would be the biggest single disaster that could befall the city—it would retard the city's industrial and physical growth at least ten years, and the attending publicity would cost the city and its citizens millions of dollars, hundreds of industries, and thousands of homes and inhabitants.

City Wants Lower Fares

A reduction in fares to 5 cents is the answer of the city of Little Rock to the Little Rock Railway & Electric Company's suit to restrain the city from prohibiting the collection of an advanced fare. The suit was filed recently in Second Division Pulaski Circuit Court.

In its answer the city alludes to the terms of the franchise under which the company is now operating in which the company bound itself to charge a fare not to exceed 5 cents for a period of fifty years after September, 1901. The city further stated that on petition of the railway in May, 1920, the City Council passed an amendment to the franchise permitting a 6-cent fare for a period of one year, provided at the expiration of that time the charge would automatically return to 5 cents. It holds that a 5-cent fare is just, reasonable and will yield to the plaintiff a just return.

C. E. Smith has been retained by the city to appraise the property. J. H. Perkins, engineer of the American Cities Company, which controls the railway at Little Rock, will represent the traction company. Reference to the proposed valuation was made in the ELECTRIC RAILWAY JOURNAL for Aug. 6.

Jitney Law Upheld

United States Court at New Haven Has Refused Injunction to Prevent Utility Commission Applying Recent Law

The recent act conferring on the Public Utilities Commission of Connecticut authority to grant or to refuse licenses for the operation of jitneys is not unconstitutional as alleged by the jitney men. The decision to this effect was handed down on Aug. 30 by the three judges of the United States District Court for Connecticut who heard the appeal of the jitney men at New Haven on Aug. 16. The court points out that the jitney men have adequate redress in the state courts for any injuries done them.

The court referred to the decision of the Superior Court of the State holding the jitney act constitutional. The court held that the several objections urged as to the constitutionality of the act were not well-founded. These claims were as follows:

1. That the act confers arbitrary powers on the Public Utilities Commission and permits the commission to discriminate against the plaintiffs and therefore deny to them the equal protection of the laws.

2. That the statute constitutes an unlawful delegation of legislative powers to the administrative body.

3. That it is unconstitutional and violates the due process of law guaranteed by the fourteenth amendment in that it confers an unregulated discretion and arbitrary power upon the Public Utilities Commission to grant or refuse or revoke a license.

4. That the statute is not requiring the commission to grant a hearing in the issuance, refusal or revocation of a license, denies due process of law.

The court said:

The streets are the property of the public. (Davis v. Mass, 167 U. S. 43.) They are under the control of the public and therefore subject to the police powers of the State, excepting where the power is delegated by statute upon a municipality or other agency. (Hendrick v. Maryland, 235 U. S. 611; Nolen v. Riechman, 225 Fed. 812.) The right to exercise the police power is a continuing one and may be exercised so as to meet the ever changing conditions and necessities of the public.

Those who make investment for this purpose as the plaintiffs, do so and hold their property and the right to use it subject to such other and different burdens as the Legislature may reasonably impose, for the safety, convenience and welfare of the public. The State Legislature may regulate the use, by automobile and motor cars of the highways of the State. (Hendrick v. Maryland, 235 U. S. 611.) It may also authorize municipalities to regulate the use of streets by vehicles and may exclude vehicular traffic. (Barnes v. Essex Co. Park Comm., 86 N. J. Law, 141.)

The suit was instituted by the jitney men operating in the city of New Haven for an injunction to restrain the prosecuting attorneys of New Haven City County Courts, the chief of police, the city of New Haven and the superintendent of the state police from enforcing the law enacted at the recent session of the Legislature which made it a penal offense for the plaintiffs to carry on their business as jitney bus carriers. The Connecticut Company operating electric railways in the territory affected by transportation through jitney service appeared by intervention and was a party to the suit.

When the Public Utilities' Commission handed down its decisions on the applications for jitney licenses two months ago it suggested that in certain places where licenses were refused to

individual operators the Connecticut Company put buses into service. Acting on this suggestion the Connecticut Company now has in operation two buses between East Haven and Branford, four between New Haven and Devon, two in the vicinity of Stamford, two in Brooklyn and one in High Street, Hartford. These bus lines are understood not to be paying, with the possible exception of the Devon line.

Wheeling-Pleasant Valley Buses Have Quit

The Motor Rapid Transit Company, which has operated between Wheeling and Pleasant Valley, W. Va., for several months, withdrew all buses on Aug. 20 and announced its decision to give up the fight with the Wheeling Public Service Corporation. Officials of the company say this decision was caused through the passage of a city ordinance a few weeks ago. It was generally understood that the company was preparing to fight the injunction case instituted by the railway. Classing the legislation as one of the most one-sided pieces of lawmaking ever written by any body of men, Henry Kiel, manager of the bus company, declared that Council had forced him to suspend his line. He charged that the ordinance as it was passed is a railway measure and has left the bus interests without a leg to stand on.

Date Fixed for Rehearing Los Angeles Rate Cases

The California State Railroad Commission has set Sept. 26 and 27 for the rehearing of the rate increases sought by the Los Angeles Railway and Pacific Electric Railway; Sept. 26 being the date for the Los Angeles Railway and Sept. 27 for the Pacific Electric Railway. The hearing will be conducted in Los Angeles.

The former hearing for the Pacific Electric Railway was held during July, 1920, at which time the commission granted emergency increases in freight and passenger rates along the lines as those granted to the steam roads by the Interstate Commerce Commission, while the Railroad Commission reserved the rights upon invitation of the Pacific Electric to investigate its affairs and make a service survey with view of effecting certain economies in the operation of its lines. Since July, 1920, the commission's engineers have been actively engaged in making this survey, the conclusion of which will enter into the rehearing on Sept. 27; also, at this hearing the problem of adjusting the Hollywood rates and service will be extensively dwelt upon.

The Los Angeles Railway case will again go into the subject of the application of the company for an increase in rates on its lines in the city of Los Angeles, the railway having not seen fit to accept the increases granted recently by the commission, as outlined previously in the ELECTRIC RAILWAY JOURNAL.

Commission States Reasons for Fare Authorization

In its recent finding authorizing the Minneapolis (Minn.) Street Railway to put into effect a 7-cent cash fare with four tickets for 25 cents the State Railroad & Warehouse Commission has summarized its reasons for permitting the advanced rate. This finding was referred to in the ELECTRIC RAILWAY JOURNAL, issue of Aug. 27, page 341.

The commission states that the emergency which the Council found existing in 1920 has not been fully relieved by the present fare; the increasing operating expenses and a decreased net revenue have brought about a condition whereby the company has not been able to earn a fair return on the invested capital. Pending the valuation proceedings, which will not be terminated for several months, there is no available data whereby it could fix a valuation upon which to base a permanent rate which would change the authorized rate as fixed by the city of Minneapolis by its ordinance of Aug. 6, 1920, and which rate under chapter 278, laws of Minnesota, for 1921, "shall be and remain the authorized and lawful charge."

The 1920 ordinance was cited in this ruling and the subsequent emergency on account of which the Council authorized a 7-cent cash fare with four tickets for 25 cents, provided that until Dec. 15, 1920, the fares shall not exceed 6 cents. The company did retain the 6-cent fare after Dec. 15, and on June 24 applied to the commission for the same rate of fare which had been authorized by the City Council of Minneapolis in its ordinance of Aug. 6, 1920.

By this decision of the commission the motion of City Attorney Neil M. Cronin for a rejection of the railway's plea was overruled.

Petticoat Lane Loses Cars in Rerouting

Rerouting of cars of the Kansas City Railways under the Beeler plan, is proceeding. The earlier of the new routes established were chiefly connections of lines formerly terminating in the business district, the changes of routing being slight.

One of the most radical changes in the program was put into effect on July 10. Two lines which formerly entered the business district were connected and routed on Twelfth Street, on the south edge of the business section. The results of this routing were considered a test of the ultimate success of the whole program.

Whereas complaints might have been expected from business men and patrons, there was no criticism from either source. The rerouting in this case eliminated from the course of the two lines passage through long stretches of the congested downtown district, where streets are narrow. The route on Twelfth Street is one block from Petticoat Lane, or Eleventh Street, the heart of the women's shopping district.

Motor Buses in West Danbury

The Danbury & Bethel Street Railway, Danbury, Conn., plans a motor bus service to West Danbury. The schedule of the bus will be similar to that of the trolley. Transfers will be issued to all other lines of the city and transfers from trolley lines will be accepted on the bus. The method of payment will be pay as you leave.

Judge J. Moss Ives, receiver for the railway, has recently purchased two other buses. One will be used in Bethel to carry passengers from the railroad station to the end of the line and the other will be kept for emergency purposes.

Bus Petition Rejected

The Council of Cedar Rapids, Ia., has rejected a proposition of S. J. Markin, Minneapolis, to put buses in operation on the streets of Cedar Rapids in competition with the local electric railway.

The Council assumed the attitude that the railway paid heavy taxes and that the city could not afford to antagonize it by cutting down its revenues. Another objection to the buses was that the crowded condition of First Avenue, the principal business street, would not permit of bus traffic. Mr. Markin also sought to run a 15-cent bus line between Cedar Rapids and Marion, a neighboring city. He had obtained permission from the Marion City Council, but failed at Cedar Rapids.

Six-Cent Fare in Duluth— City Fights Ruling

The State Railroad & Warehouse Commission has authorized the Duluth (Minn.) Street Railway to increase its fares from 5 cents to 6 cents. Following this announcement, City Attorney John B. Richards applied to the district court asking for a stay and injunction against operation of the order. The injunction is requested until the court can pass upon the merits of the case. The railway had asked for a 7-cent fare. The city valuation expert is now making a valuation survey of the property. His figures will be offered in evidence by the city in its suit.

Must Not Solicit Passengers

Soliciting from taxicabs for passengers is no longer permitted in Cincinnati, Ohio. The City Council has passed an ordinance which makes it unlawful for drivers of taxicabs to solicit fares while driving. This practice has caused unnecessary congestion and many traffic tie-ups in the downtown district and has hampered the fire department. The ordinance provides fines from \$5 to \$100 for violations. The chief reasons for drawing up the ordinance were complaints by the fire department officials that it was almost impossible to make a "run" to the center of the city because of the traffic congestion due mostly to taxicabs soliciting passengers.

Transportation News Notes

Grants and Denies Jitney Applications.—The City Council of Seattle has granted three applications for permits to operate jitney buses on "feeder" lines north of Cowen Park, but has denied an application for a jitney route to operate in competition with the Rainier Valley car line.

Decreased Traffic Due to Jitneys.—For the twelve months ended July 31, 1921, the Virginia Railway & Power Company, Richmond, Va., carried 2,324,728 fewer passengers than for the previous year. The railway officials estimate that jitneys are taking about \$600 a day from their railway.

Ten Cents Authorized.—The Grays Harbor Railway, Light & Power Company, operating between Montesano, Aberdeen and Hoquiam, Wash., has been permitted to charge a rate of 10 cents a ride on city and interurban cars, or three rides for 25 cents, according to a ruling of the Department of Public Works on July 29. The city officials of Montesano had protested against the recent change in fares, which provided for a 6-cent fare in the city and a 10-cent fare on the interurban, stating that no effort had been made to prevent jitney competition.

Requests Lower Rates.—Following approval of the City Council of Tacoma, Wash., City Attorney J. Charles Dennis has been instructed to prepare a formal petition to the Department of Public Works at Olympia requesting the Tacoma Railway & Power Company to sell thirteen tickets for \$1 instead of the present plan of selling twenty-five tickets for \$2. The move is the result of a petition filed with the City Council by Lorenzo Dow, who points out that the wages of railway men have been reduced, prices on materials cut, and he felt that it is unjust to require the people now to pay \$2 in advance for twenty-five tickets. A letter has been sent to the railway, enclosing Mr. Dow's communication, and stating that the City Council is in sympathy with such a suggestion, and asking the company to consider it favorably. City Councilmen believe that the company would increase its business by a change of policy in its ticket sale.

Buses Comply With Law.—Under the bus regulation ordinance at Toledo, Ohio, thirty-six motor cars have registered and deposited their indemnity bonds with the city authorities. Already there have been charges of racing and combination on the part of buses on the Dorr Street line. Most of them operate in this part of the city. Independent buses came to Toledo to operate and were attacked by the organized busmen there. Offenders are threatened with revoked licenses unless sched-

ules are properly maintained. Residents of Point Place, a lakeside suburb, have voted to remain loyal to the street cars which operate in their portion of the city. A special line was constructed some years ago to serve the community. It is a branch of the Toledo, Ottawa Beach & Northern Railroad and is operated by the Toledo Railways & Light Company. Recently buses have made such inroads that the railway service was threatened. The property owners, however, in a meeting voted 290 to 10 in favor of patronizing the street cars.

New Publications

McGraw Electric Railway Directory for August, 1921

The McGraw Electric Railway Directory is the cumulative result of more than twenty-five years' work. In the current issue more than 1,025 companies furnished new reports, and more than 5,000 changes were made from the preceding edition. The appendix contains a list of electric railways that are operating motor buses, and in the data published in the body of the book statistics are given of the number of motor buses operated.

The Engineer

By John Hays Hammond. Published by Charles Scribner's Sons, New York, 1921. Cloth 4 x 7 in., 194 pages.

To open the eyes of the youth in a quandary as to what career to follow and to aid him in analyzing his fitness for engineering is the purpose of the famous mining engineer in this valuable outline. Setting forth the qualities essential to success in engineering as imagination, integrity of purpose, accuracy of thought, capacity for judgment, ingenuity, curiosity, creative instinct and analytical ability, a standard is set by which one may measure his own fitness. Taking up successively the various main branches of engineering endeavor, the achievements to be expected in each field are vividly portrayed.

Mr. Hammond points with emphasis to the value to the engineer of a fundamental working knowledge of the English language. Finally, he pictures the engineer of the future as a man of ever-increasing importance and value to the community, both in his own profession and as an executive in government affairs, because his own training and preparation have imparted to him those very qualities of precision, honesty, aggressiveness and analytical ability, which are the prerequisites of true statesmanship. An engineering training, he concludes, so enlarges the vision as to enable one so trained to see national problems in their broadest aspects and thus be able to solve them accurately and permanently.

Personal Mention

A Rapid Rise to Manager

But 28 Years Old, L. P. Sweatt, Jr.,
Is Picked for Division Executive
of Alabama Power

When the post of manager of the Eastern Division of the Alabama Power Company was vacated by the promotion of J. M. Barry, there was no doubt in the minds of the officials of that company as to the proper man for the place. L. P. Sweatt, Jr., had shown such a marked aptitude for, and knowledge of, the complex problems to be handled by a division manager, that he was immediately promoted to the position. Since the appointment, he has fully justified this belief and has made good in every way. Mr. Barry has been promoted to assistant chief engineer of the company, in charge of all construction work, with headquarters at Brimingham.

Mr. Sweatt was born in Montgomery, Ala., in 1893, but moved to Birmingham with his parents in 1902, where he attended grammar and high school, graduating from the Central High School in 1910. During the summer vacation period and at odd times during school days, he worked in the shop of the Louisville & Nashville Railroad in Birmingham under the personal supervision of the master mechanic. After graduating from high school, he worked for nearly two years on the construction of the new shop and power plant for the railroad at Boyles, Ala. Upon completion of the power plant at this point, he was transferred to the electric department and served as assistant engineer operating the power plant until 1912, when, realizing a long desired ambition, he entered the Alabama Polytechnic Institute at Auburn, to supplement with theory the practical knowledge gained with the Louisville & Nashville.

This practical power house experience caused him to apply for a position in the power house at school, and he was immediately appointed assistant power plant engineer. His work was very satisfactory and one year later he was made chief engineer for the entire power plant supplying light and power to the college and the city of Auburn. Working and studying at the same time proved such a satisfactory arrangement that Mr. Sweatt completed the full electrical course in three years and graduated in 1915. He immediately entered the services of the Alabama Power Company as a helper on substation maintenance, but was soon made a foreman, and in this capacity built the high-tension substation at Sylacauga and changed the Anniston substation from an indoor to an outdoor type.

In 1917 Mr. Sweatt was transferred to the commercial department, leaving the field for the office, where he as-

simulated the thorough commercial training that has since proved to be of great value to him as a division executive. In 1919 he returned to the operating department as superintendent of the Western Division, being later invested with the title of division manager, and his work proved so satisfactory that, as before stated, in the early part of this year he was sent to Anniston as manager of the Eastern Division, and is at present proving himself as adaptable there as he had shown himself to be in other positions.

Mr. Barry, who was Mr. Sweatt's predecessor, was manager of the Eastern Division for two years, coming to



L. P. SWEATT, JR.

the Alabama Power Company from the Pacific Gas & Electric Company, Cal., where he had held several important positions in the operating, maintenance, and construction department. He is a native of San Francisco and is possessed of a very unusual engineering and executive ability. At present he is principally occupied in the construction of the "Mitchell Dam" 120,000-hp. hydro-electric plant at Duncan's Rifle on the Coosa River.

The Eastern Division of the Alabama Power Company controls the electric railway system in Gadsden and Anniston, comprising a total trackage of 22.2 miles and operating a total of 28 passenger cars. This division of the company controls the sale of electrical energy directly to consumers in local operations of about 15 town and cities. Indirectly, through other public service companies, five others are furnished with energy. In the area served there is an approximate population of 80,000.

F. D. Mahoney, commercial manager of the Alabama Power Company, Birmingham, Ala., was recently elected president of the Alabama Light & Traction Association, an old organization composed of officials of certain public utilities in that state. Mr. Ma-

honey, who was formerly second vice-president, succeeds H. H. Horner.

E. Don McKibben, for fifteen years an employee of the railway department of the Pennsylvania-Ohio Electric company in the New Castle district, has been appointed superintendent of Cascade Park. He assumed his new duties on July 7 and at once began the work of aiding in making the park season in New Castle a most promising one. Mr. McKibben is widely known all over the Pennsylvania-Ohio system and he carries into his new work the best wishes of his friends.

Frank Gest, for ten years in charge of the garage of the Pacific Northwest Traction Company, Seattle, Wash., and for four years previously foreman of the machine shop at Georgetown, resigned his position in July to accept one as foreman of the machine shop of the Seattle school board and also to have charge of the automobiles of the district. Mr. Gest's many friends in the company organization will regret his departure, while wishing him success in his new place. He has been succeeded in the company garage by S. S. Woodin, who for some time has been an assistant mechanic.

John C. Collins, who has been traveling supervisor of safety for the Los Angeles (Cal.) Railway, has come into charge of the safety bureau with the promotion of Hugo K. Visscher, former supervisor of safety, to the position of assistant superintendent of operation. In his work on the cars Mr. Collins has become well known to trainmen and they realize his extensive effort to help the cause of safety first. He has shown ways of avoiding many accidents that have been overlooked even by men years in service, and as supervisor of safety he aims to be of still greater help. He has been with the Los Angeles Railway for about twenty years and worked up from the train service to his present important position. For several years he was a member of the instruction department.

Obituary

Epes Randolph

Epes Randolph, president of the Arizona Eastern Railroad and the Southern Pacific of Mexico, whose death was announced last week, was one of the pioneer railroad men of the Southwest. He not only was a railroad builder of the Southwest and in Old Mexico, but had an important part in traction development, notably in Cincinnati and in Los Angeles, where he was formerly executive head of the Los Angeles Railway and the Pacific Electric Railway. At the time of his death he was an active director of the Pacific Electric Railway lines. He was also president of the California Development Company and of the East Coast Oil Company.

Manufactures and the Markets

DISCUSSIONS OF MARKET AND TRADE CONDITIONS FOR THE MANUFACTURER, SALESMAN AND PURCHASING AGENT

ROLLING STOCK PURCHASES

BUSINESS ANNOUNCEMENTS

He began his railroading work in 1876, and from that year to 1885 he had served a half-dozen companies. Among them were the Alabama Great Southern, the Chesapeake, Ohio and Southwestern and the Kentucky Central. He was a civil engineer by profession and in that period he was engaged in location, construction and maintenance work, serving as assistant, locating, resident and division engineer and operating in several eastern states, Texas and Mexico.

Mr. Randolph in 1885 became chief engineer of the Kentucky Central, with headquarters in Covington, Ky. At the same time he served as chief engineer of the Cincinnati Elevated Railway and the Transfer & Bridge Company, for which he built a bridge over the Ohio River, connecting Covington and Cincinnati.

In 1890 he was made chief engineer and superintendent of the Newport News & Mississippi Valley Company, the Ohio & Big Sand Railroad and the Kentucky & South Atlantic Railroad, with headquarters in Lexington. The year 1891 found him in Louisville as chief engineer and general superintendent of the Chesapeake, Ohio & Southwestern and the Ohio Valley Companies. Mr. Randolph resigned in 1894, taking a trip to the West for his health. Although not in active service, he continued as adviser of several railroading and traction projects, notably the bridge over the Ohio River from Louisville to Jeffersonville, Ind.

A year after his resignation he became connected with the Southern Pacific Railroad and the most important period of his career began. For six years he was superintendent of the Arizona and New Mexico Divisions, with headquarters at Tucson, Ariz., where he made his home.

In 1901 Mr. Randolph came to Los Angeles to become vice-president and general manager of the Los Angeles Railway and the Pacific Electric Railway. He remained in Los Angeles three years, locating, building and operating some 700 miles of electric lines in Los Angeles and vicinity. While actively engaged in this work, Mr. Randolph was instrumental in projecting and constructing some of the most extensive lines of the Pacific Electric Railway. He returned to Tucson, Ariz., in 1904 to become president of the Gila Valley, Globe & Northern Railway and of the Maricopa, Phoenix & Salt River Valley Railroad, as well as the Harriman lines in Old Mexico. He became president of the consolidated companies when the Cananea, Yaqui River & Pacific Railroad lines in Mexico were absorbed by the Southern Pacific Company of Mexico and the other roads were merged with the Arizona Eastern Railway.

Mr. Randolph's death occurred very suddenly. Although for many years ill with tuberculosis he had made a valiant fight against the disease, and he had been recently attending actively to duties in connection with his executive positions.

New Scrap Classification

Division of Purchases and Supplies of American Railway Association Revises Old Material Schedule

The American Railway Association, division 4, purchases and supplies, has prepared a new scrap iron and steel classification which will come up for adoption at that body's next meeting, which will take place in the spring of 1922. The classification is of especial interest to old material dealers because, if adopted, it will be used by all of the railroads and will eliminate the special classifications now in use.

The proposed classification follows the old store-keepers' classification more closely than any of the other various classifications. Thus far the only criticism of it reported by the dealers is that it does not stipulate that No. 1 steel rails is intended to cover rails used for rerolling purposes.

Axles, steel—Car and locomotive, 6 in. diameter and over at center.

Axles, steel—Car and locomotive, under 6 in. diameter at center.

Axles, steel, hollow bored.

Axles, iron—Car and locomotive, all sizes.

Angle bars, splices and fish plates, iron.

Brake beams, uncut.

Buildup bolsters.

Couplers and knuckles, steel and steel knuckle pins, punches, finger pins, bits.

Tools and tool steel—Worn out steel tools, tool steel, files, including old claw bars, pinch bars, spike mauls, track wrenches, picks, axes, adzes, chisels, drills, hammers, knuckle pins, punches, finger pins, bits, draft keys, bar steel weighing under 10 lb. per piece.

Frogs and switches, uncut—Steel and iron frogs and switches that have not been cut apart, exclusive of manganese material.

Malleable—All malleable castings.

Rail, iron, No. 1—Iron tee rail, 3 ft. long and over, tee section 40 lb. per yard and over, free from frog, switch, guard or crooked rail.

Rail, iron, miscellaneous—All iron rail, not otherwise specified, including guard rails, switch points and frogs, when cut apart. Does not include frog fillers or plates.

Rail, steel, No. 1—Standard section steel tee rails, 50 lb. per yard and over, 5 ft. long and over, free from badly bent and twisted rails, frog, switch and guard rails and rails with split heads and broken flanges. Note: All rail suitable for relaying must be classified as relaying rail separate from all scrap rail.

Rail, steel, No. 2—Cropped rail ends under 3 ft. long, 50 lb. and over, standard section.

Rail, steel, No. 3—3 ft. long and over, 50 lb. and over, standard section having split heads or ball of rail worn with wheel flanges, curved and bent rails, free from frog, switch and guard rails.

Rail, steel, No. 4—All sections of rail not coming under specifications of No. 1, 2 or 3 rail, including frogs cut apart, guard rails and switch points. Does not include frog fillers or plates.

Spring steel No. 1—Flat spring steel, including elliptic springs from which bands have been removed.

Spring steel No. 2—All coil springs, made from steel $\frac{3}{16}$ in. and over.

Manganese steel—To include all kinds of manganese rail, frogs and switch points, cut or uncut.

Steel, high speed—High speed steel turnings (butts and ends report separately).

Tires No. 1—All locomotive or car tires 36 in. and over inside diameter, smooth inside, not grooved for retaining rings or lipped.

Tires No. 2—All tires not included in tires No. 1.

Wheels, No. 1—Includes all solid cast iron

car and locomotive wheels; no allowance for grease and dirt.

Wheels, No. 2—Includes all kinds of built-up or steel-tired wheels (specify kind in offering).

Wheels, No. 3—Includes all solid rolled, forged or cast steel car and locomotive wheels (specify kind in offering).

Wrought, railroad No. 2—All wrought under 6 in. long, not specified under No. 1 railroad wrought; to include track spikes, bolts, nuts, rivets and lag screws.

No. 3 brass—Journal bearings free from babbitt.

No. 5 brass—Yellow brass castings, to include coach trimmings, light brass, hose couplings, pipe, tubes, etc.

Copper cable, insulated—Specify kind.

Copper, No. 1—Wire free from insulation, flue ferrules, pipe and tubes.

Copper, No. 2—Battery copper.

Lead—Battery.

Lead—Battery mud or sediment (specify wet or dry).

Zinc—Battery or sheet (specify kind).

Drop of 3 Points in Index of Railway Material Prices

The index for street railway material for July, 1921, as computed by Albert S. Richey, electric railway engineer, is 164, as compared with 167 in June of this year. A year ago the index stood at 237, while the peak, which was reached in September, 1920, was 247. Prices as they existed in 1913 are taken as the base, which is 100.

The index of street railway wages has taken a drop of 5 during the last month, the figure for August being 218. This is a drop of but 13 points since August, 1920, at which time the index was 231, but one less than the peak also reached in September, 1920.

The average street railway fare Mr. Richey gives as 7.2 cents for August. This is a drop of .01 cent during the last month and a drop of .04 cent since May, 1921, when the peak was reached. The average as given for 1913 was 4.84 cents.

It can be seen that while street railway material cost 64 per cent more than it did in 1913 and wages are 118 per cent higher, fares are only 49 per cent higher than their 1913 average.

Proposed Subway and Tunnel for Havana, Cuba

Plans for the subway system and tunnel proposed for the city of Havana, says *Commerce Reports*, have been exhibited to a representative of the American consulate general at Havana, Cuba. Indications are that the necessary concessions for the work have been approved by the Cuban Railroad Commission, and that the Cuba North & South Railroad, organized to promote this project, has been completed in accordance with Cuban laws governing the organization of companies for railroad construction. A representative of the firm of engineers in charge (Sr. Serafin Sanchez Govin, No. 62 Villegas Street, Havana), holding a full power of attorney to act for the Cuba North

& South Railroad, declared his intention of going to New York in October or November to arrange for the necessary capital and expressed a desire to receive correspondence from persons in the United States who may be interested in either the structural or the investment possibilities of the project.

Heater Manufacturers Ready Railways Should Order Heater Repair Parts Now to Insure Prompt Deliveries

Orders for electric railway heaters this season have not been up to the standards of other years, manufacturers report, although there have been several instances where the demand has been but slightly subnormal due to a few deliveries that have followed orders for new rolling stock. The buying of heater repair parts, on the other hand, is very backward in spite of the fact that the season is fast approaching for the railways to be putting their heater equipments in order. Such feeble activity in the repair-part line suggests that the general attitude of buyers seems to be to await actual necessity before placing orders.

Manufacturers and distributors claim that they are in a fairly good position in regard to deliveries; much better than they were at this time last year, when much difficulty existed in securing raw material. Stocks are not large, but are commensurate with the present demand. If railways whose needs are pressing but which are anticipating future requirements should suddenly decide to place their orders considerable delay and congestion will be inevitable.

Prices have seen but slight changes on the whole. One jobber, however, reports a reduction of 10 to 12 per cent on prices existing several months ago. Manufacturers as yet have not seen fit to reduce prices, claiming that costs do not yet warrant any reduction and that heater prices never did soar out of sight.

The subnormal activity in the demand for heater repair parts perhaps may be accounted for by the comparatively mild weather of last winter. However, if the predictions of the seers are to be given credence that we are due for a hard winter this year, the railways had better get busy so that they may not be caught unprepared.

Calcutta Electrification Considered

Advices through the Guaranty Trust Company, New York City, state that the electrification of the suburban railways within 25 miles of Calcutta, India, is considered.

Electric Railway Projected in Piedmont Province, Italy

The Department of Commerce advises that a committee has been formed to draw a plan for the construction of a new electric railway from Mondovi to Cuneo, in northern Italy.

Rolling Stock

Los Angeles (Cal.) Railway is in the midst of an extensive program of rebuilding 98 cars. Reconstruction has passed the half-way mark and 50 new car motors of the latest type have been received and are being installed at a total cost of about \$75,000. The cars being rebuilt are to have larger loading platforms, thus increasing their length about 10 ft. The new motors are Westinghouse 526, 50-hp. machines, of the ventilated, box type.

Franchises

Central California Traction Company, San Francisco, Cal., has made application for a franchise for a period of fifty years to construct, maintain and operate a railroad track of standard gauge in Stockton, San Joaquin County.

Portland-Linnton (Ore.) Railway has been granted a franchise to build and operate a street railway from Portland to Linnton using certain trackage of the United Railways. It is believed that work on the line will be started soon and it is estimated that \$40,000 will be expended on the new line.

Graham, Va., is offering for sale and advertising for sealed bids by Aug. 20 a franchise to construct, operate and maintain an electric street railway in that town.

Charleston-Dunbar Traction Company, Charleston, W. Va., has applied through its president, Isaac Lowenstein, for a franchise which will give a direct connection between both companies operating in Charleston. The franchise asked for would permit the Charleston-Dunbar cars to use the interurban company's tracks on Charleston Street between Elk River and Edgewood and thus obviate the Charleston-Dunbar long detour through the west side. President Lowenstein explained that the purpose of the application for the franchise was to secure a harmonious working arrangement between the lines of the Charleston-Dunbar Company and the Interurban company as rapidly as possible, and he intimated that the plans now in process of formation may ultimately lead to the operation of the two lines under a joint management that would be to all purposes practically a consolidation.

Track and Roadway

Concepcion-Horqueta Railway may be extended to the Brazilian border in accordance with a project now under consideration by Brazil and Paraguay. The line would be linked up from Bella Vista with the Noroeste at Campo Grande or at Pedro Juan Caballero with the branch of the Sorocabano now being built west from Botucatu. Traffic for this railway would consist principally of cattle and hides.

Ottawa (Ont.) Electric Railway is relaying 1½ miles of track with 80 lb. T-rail and is equipping a new transformer room at a substation.

Dallas-Terrell Interurban Railway will start work about Sept. 1, according to C. W. Hobson, vice-president of the Dallas Railway, which is to build the new line. Mr. Hobson said that the proposed road would cost approximately \$1,800,000. Nearly all of the right-of-way has been obtained and orders for materials are being placed. The line is being constructed in compliance with the terms of the franchise under which the Dallas Railway is operating.

Wichita Falls (Tex.) Traction Company is building approximately 4,000 ft. of new track through paved streets. The company expects to build this track with 75-lb. standard T-rail with special trackwork of 120 lb. high T-rail. The contract for all special trackwork has been let to the Lorain Steel Company, Johnstown, Pa., and shipment is expected to be made within the next fifteen days. Dayton mechanical steel ties and joint ties set on 2-ft. centers are to be used for all of this work. The company also expects to build some 2 miles of track in other parts of the town, beginning at the intersection of Broad and Thirteenth Street, and running south on Thirteenth Street, making an intersection with the present line, which is known as the Southland line. This, when completed will save an operation of some sixteen blocks on each round trip. Plans are also being made to build in the

near future a line across the Wichita River into the refinery district.

Danville Traction & Power Company, Danville, Va., has been overhauling one of its double tracks on Main Street from the Municipal Building to Mt. Vernon church. The grade of the tracks has been raised three-quarters of an inch.

Power Houses, Shops and Buildings

Lexington (Ky.) Utilities Company is preparing to spend \$100,000 for new buildings and new equipment.

The Twin City Rapid Transit Company has begun to replace the chain grates in its steam plant on the Mississippi River in Minneapolis with Westinghouse underfeed stokers. The six boilers already re-equipped have increased their rating from 175 per cent to 300 per cent. The plant altogether has twenty-eight boilers and ultimately all will be equipped with the stokers, the purpose being to keep the steam plant up to the complete quota of demand. This steam plant was first equipped in 1903 with Westinghouse Roney stokers. In 1910 these were changed to chain grates. The capacity of the plant is 50,000 kw.

Salt Lake, Garfield & Western Railroad, Salt Lake City, Utah, suffered a fire on Aug. 8, which almost totally destroyed its carhouses and rolling equipment. The loss, which is estimated at \$150,000, is fully covered by insurance. No serious curtailment of traffic has resulted, as plans were immediately put into effect for the hiring of equipment with which to continue service. The carhouses will be rebuilt.

Trade Notes

D. J. Bokes has been appointed manager of the Charleston, W. Va., office of the Automatic Reclosing Circuit Breaker Company, of Columbus, Ohio, with headquarters at 110 Hale Street, Charleston.

R. L. McLellan, formerly of the Chicago office of the Westinghouse Electric & Manufacturing Company, has been appointed assistant to director of heavy traction, with headquarters at the New York office.

The Crane Company, manufacturer of pipe valve fittings, steam fittings, etc., is constructing a new one-story building 100 ft. x 145 ft., adjoining its present works at 490 Cherry Street, New York City. The cost is estimated at \$28,000. The new building will be used for assembling purposes and to provide storage space for material being held for export.

The Glidden Company, Chicago, through its president, Adrian D. Joyce, has been successful in making arrangements for the manufacture and distribution of ripolin enamel paint in America. It will be more extensively advertised and merchandised than ever before. It is known in this country largely for its merit as a long life interior and exterior architectural enamel and in European countries has attained its greatest distinction as the best finish for all types of railway rolling and signal equipment. This enamel will be manufactured according to the original formulae in the various factories comprising the Glidden organization. Quantities of ripolin have been imported to take care of the demand until the American manufacturers can produce it themselves under the supervision of foreign experts, who are now on their way to this country.

New Advertising Literature

Ohmer Fare Register Company, Dayton, Ohio, is now distributing throughout the railway field a booklet on the Ohmer system of fare collection. The influence of a printed record on the conductor is outlined as well as the possibilities of the company in making use of the information on this record.

General Electric Company, has just made available bulletin No. 46041 which fully describes a device known as the type H-2 A-C temperature indicator. This instrument affords the operator an easy and convenient means of determining at the switchboard the hot-spot temperature of the windings of transformers under all operating conditions. The bulletin also contains a complete wiring diagram for this apparatus.