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JAMES H. MCGRAW, President.

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CURTIS E. WHITTLESEY, Secretary and Treasurer.

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

HENRY W. BLAKE, Editor.

L. E. GOULD, Western Editor.

Associate Editors:

RODNEY HITT, FREDERIC NICHOLAS, WALTER JACKSON.

News Editors:

G. J. MACMURRAY, FRANK J. ARMEIT.

CHICAGO OFFICE.....1570 Old Colony Building

CLEVELAND OFFICE.....1015 Schofield Building

PHILADELPHIA OFFICE.....Real Estate Trust Building

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A Pamphlet on Norfolk Franchises

A good example of the straightforward method of presenting the case of a proposed electric railway franchise ordinance to the people is shown in a pamphlet recently published by the Norfolk & Portsmouth Traction Company, and signed by its president, John Blair MacAfee. The changed conditions in the distribution of population in Norfolk, due to the growth of the city, called for a modification of the existing routes and the extension of certain lines, which were obviously as much for the benefit of the community as of the railway. The subject could have been argued out in the Council, but the company believed that every citizen was also entitled to a presentation of the case so that he could understand the situation. So it published a pamphlet which showed the proposed routes in detail, described the benefits which would accrue from them and prefixed an introduction discussing electric railway conditions in general and those of the Norfolk & Portsmouth Traction Company in particular. A great deal is being said at the present day in regard to direct primaries and the referendum. The opinion of good citizens is divided as to the advisability of their adoption, but there is no doubt that people as a whole are taking a great deal more interest in political matters than ever before. It may not be wise to extend the policy of referendum to such municipal questions as ordinances affecting the manner of extending electric railway franchises, but the development of an intelligent public sentiment in regard to the real conditions of electric railway operation cannot but be of material value, both to the community and to electric railway companies. Such a knowledge will inevitably have a powerful, if not controlling, influence upon the decisions reached by the regularly constituted authorities, and the pamphlet issued by Colonel MacAfee and others of a similar character are steps in the right direction.

Sunday Excursions at Reduced Rates

The practice of offering reduced excursion rates on Sundays, holidays and at the time of such special events as circuses, fairs and large conventions is common on steam railways and has been followed by several electric interurban roads in an effort to increase gross earnings. A study of the timetables of steam roads shows at a glance the reason why special excursions are profitable on days when commercial business is generally suspended. Usually one-half or more of the local trains run "daily except Sunday" and it pays the steam railroad to utilize for excursions the cars and locomotives which would be idle otherwise. Most interurban roads on the other hand do their largest business on Saturdays and Sundays. Their equipment is usually barely sufficient to handle the traffic which come on these days without offering special inducements and if extra cars are provided for the excursion business they only stand idle during the week. At the best there is only a

small margin of profit in reduced excursion rates and it easily is possible actually to lose money in the end if the practice is overdone. Even if a company has a few extra cars it can do its regular business untold harm by offering low rates and attempting to handle more people than can be comfortably accommodated. The recollection of bad service remains with the public a long time. In the case of a new road the conditions may be somewhat different. Reduced rate excursions will serve to attract the bargain hunting traveling public and to acquaint them with the road and its facilities. If the service is given as advertised they will ride again at the regular rates. Long distance travel also can often be stimulated by reduced rates offered on the days when people have the time to travel. But the principle should be borne always in mind that unless the business so attracted tends to equalize the week's load curve it is apt to be done at a loss.

Roadway Signs

Although the question of roadway overhead signs to indicate school and fire-engine crossings, section breaks, automatic switches, slow-down sections, and curves where cars which pass in opposite directions will not clear, is of minor importance compared with some other problems which a city railway management must solve, it constitutes one of the many details which go to make up success in operation. No great advantage perhaps would follow the adoption by all railway companies of uniformity in the shape or the wording of the signs, but some improvements could often be effected by individual companies at little extra cost. The worst faults at present are the insufficient number of signs and their tendency to become illegible because of cheap construction. The most desirable location for these signs is on the span wires or suspended from the nearest pole. Either plan is better than that of painting the sign on the rounded surface of the pole itself. It is true that signs or no signs the experienced motorman knows as a matter of course all the special running conditions on his route. But as a matter of precaution, it is advisable to have all points distinctly marked as a reminder to the old motorman and as a notice to the employee of less experience. Signs of this kind may be considered as a form of advertising which impresses the public with the fact that the railway management wants the exercise of the utmost care in the operation of its cars. It was said long ago that a wicked and perverse generation seeketh after a sign and the principle holds good to-day that a liberal use of signs is a great convenience to the traveling public. It is often advisable to indicate even the stopping points of cars for the benefit of strangers as well as of local residents who are apt to forget what stop rule is in vogue at certain localities. Another important point in connection with signs of this kind is their construction. Whatever the material used, it should be such as to withstand the weather or otherwise the signs will soon become unsightly, illegible and even dangerous. A cheap looking sign is quite likely to convey an undesirable impression of the management. Perhaps as good a sign material as any is enamelled iron, hung to the span wire by copper or brass clips. This material is such a common article of manufacture that it can be purchased almost anywhere for but little more than cast or sheet iron, which has to be kept painted.

SOME PRECAUTIONS IN THE USE OF HIGH VOLTAGES

The increasing use of high transmission voltages in electric railway service brings up considerations with respect to safety which are hardly of the same importance with the ordinary transmission work. Transmissions for railway purposes differ from the usual industrial lines in their relation to accessibility to an extent that makes caution particularly important. The ordinary power transmission line runs across country perhaps for many miles commonly and preferably over its own right-of-way, particularly if of very high voltage. It is in a sense accessible to anybody who wants to climb the poles or towers, and trespassers have sometimes met a lamentable end, but, on the whole, the public knows pretty well the danger of such lines, the very insulating features of which are enough to suggest the likelihood of danger, and are rather inclined to give them a wide berth.

In railway systems, on the other hand, there is a strong probability that the transmission lines wholly, or to a large extent, follow the railroad right-of-way and while they are not usually in the class which to-day is called high voltage, say, 30,000 volts or over, they are still quite high enough to be dangerous and run much nearer to the ground than is the case with transmission lines. High-voltage feeders are frequently carried rather low and must be guarded accordingly. Further, these high-voltage feeders and some accompanying transmission lines carrying pressures of 20,000 volts to 30,000 volts do not suggest from their structure any particular element of danger, the insulators being of moderate size and mounted on pins of about the ordinary dimensions in about the usual way. Beside this similarity to lines of more moderate possibilities it is becoming rather common to run such circuits with all the wires on the same level, the old triangle arrangement of the three-phase circuits, which instantly marked them as transmission lines, being abandoned. It would seem to be a wise policy to mark all lines carrying high-voltage alternating circuits distinctly and definitely with a danger sign, as is very often done abroad. A conventionalized lightning bolt or some similar broad hint placed conspicuously on the pole perhaps in the immediate vicinity of the high-voltage wires would soon become familiar as a sufficiently conspicuous danger warning to keep linemen or casual trespassers away from wires which in themselves convey no particular suggestion of danger.

The public should be made thoroughly familiar with the risk of fooling with high-voltage circuits. To the ordinary petty risks of 500-volt railway current they have become thoroughly hardened, but the high-tension feeders, and in the case of alternating-current roads, the high-voltage trolley wires are a very different matter. Where the former run along the railway line there is also always some risk of getting crosses upon guard and even trolley wires to which particular attention ought to be called. There are several effective plans for grounding or otherwise putting out of mischief broken wires even in the cases where they do not ground themselves, and the precaution is worthy of consideration.

Finally the possible dangers with very high-voltage circuits ought to be better understood than they are. With pressures of 40,000 volts or 50,000 volts and above, now in occasional use for railway transmission, it is not sufficient that the linemen

understand sufficiently that they must not touch the wires even with rubber gloves on. It is also vital that they should understand that such wires are not safe to work around unless with the exercise of extraordinary caution. There are several instances in which men have been killed or so shocked as to fall from the poles with fatal results when the appearance and indication showed that there was no actual contact with the wire at all, but only an approach within striking distance of the high voltage. It is not altogether safe, in other words, to point out a high-voltage wire by approaching the finger within a few inches of it, particularly if one does not know the actual pressure of the circuit. With proper precautions the more moderate voltages can be handled with perfect safety, and lines can even be subjected to minor repairs while carrying current. It is, however, preferable in circuits of which the continuity is as important as it is in railway work to provide duplicate circuits, or at least duplicate wires which can be cut in at switch stations on very short notice, and it is worth remembering that even a dead wire on a high-tension line should be hard grounded before work begins on it. The shocks received from an ungrounded wire are presumably not perilous, but the only "good" high-voltage wire is one made thoroughly dead by effective grounding.

ELECTRIC RAILWAYS AND THE NEWSPAPERS

Occasionally, an electric railway official, tired of being quoted or misrepresented in the daily press, will include all newspapers and their attachés, editors, reporters and proprietors in a general, sweeping and forceful denunciation. Now, we are very far from approving all of the actions and policies pursued by our fellow journalists of the daily press. Every business and profession has its rascals and the newspaper business is not free from them. We do not propose to defend the venal or excuse the misguided journalist's efforts or to palliate the publication of erroneous statements of any kind. But we do believe that in a great many cases, more cordial relations than now exist could be cultivated between the press and the public service corporations to the benefit of both and without the expenditure of any money for advertising space. The newspapers fulfill a necessary function in the business and social life of the community and they are here to stay. The public service corporation also has an important function to perform in the community and its affairs are naturally of public interest. We believe that most railway companies are realizing that the public is not only entitled to the knowledge of all important action taken by the company, but that the simplest and most direct method of making this action public is through the newspapers.

The primary foundation of good relations between the papers and the companies is means by which the former can secure prompt, accurate and authoritative "news" in regard to the company's affairs which is of public interest. Ordinarily the official to give out this news is the chief executive officer of the company. On the small roads, he is the one to whom newspapers naturally turn for information of this kind. On larger systems, the intermediary can just as well be a special publicity officer or manager who is even more efficient for this purpose than the president or general manager because he has more time to devote to it. It is essential, however, that such

a person should have a good sense of news values so that he will know just what the newspapers want. A man who is familiar with the ins and outs of the publishing business is much more desirable for this service than a man with railroad training only. The advantages of having for this work an individual who combines newspaper experience with tact and courtesy is illustrated in the case of one large railway which has succeeded in overcoming the unfriendly attitude of the home newspapers to such an extent that it rarely fails to receive fair treatment whenever articles concerning its affairs are published.

The publicity manager of this railway was for a long time a reporter and editor on one of these papers and so was personally acquainted with nearly all the journalists in the towns served by his company. His first move was to inform these men that he would be at their disposal by telephone both day and night for confirmation and amplification of any story which they might secure about his company. In addition to correcting articles obtained directly by the reporters, this publicity manager also arranged to write a great many items himself, but instead of preparing them as cut and dried stories for distribution to all the papers at the same time, he makes it a point to bring out most strongly the features sure to be of local interest. Thus, when the company appropriates a certain sum of money to cover improvements in towns A, B, C and D, the items prepared for the newspapers in town A emphasize what is to be done for that particular locality, while the improvements for the other cities are mentioned but vaguely. In short, the publicity manager puts himself in the place of a reporter who wants to secure a story that will interest his particular class of readers. Consequently, when the item is written and submitted, it can enter the paper as news without any puffs or other evidences of "inspiration." From time to time, long stories are prepared, as on the handling and the counting of fares, improvements in shops and cars, etc., but in no case is such an article written until some editor has been apprised of the subject and has signified his desire to accept a story of the character suggested. As the result of this policy a great many notices are printed to show how the company endeavors to satisfy the public requirements. At the same time the only advertising placed in any of the papers is that actually needed for legitimate announcements. All advertising is paid for in cash on a monthly basis.

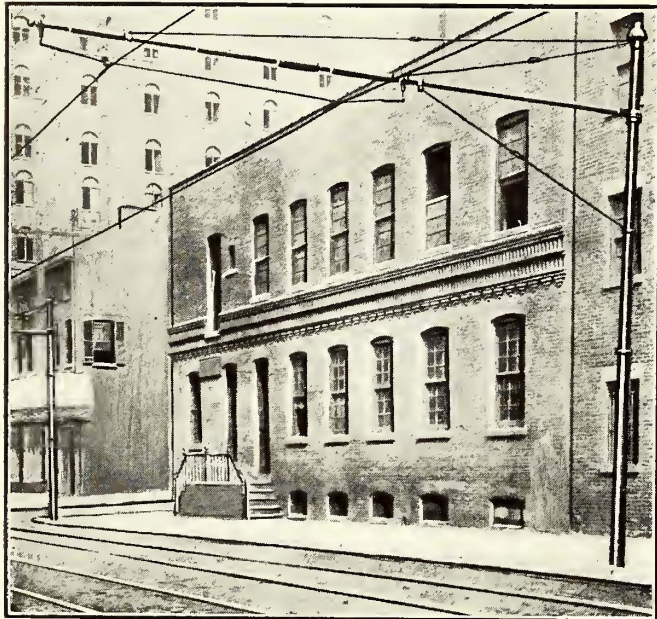
One feature which has particularly contributed to securing the friendship of the newspapers is the frankness of the company in regard to accidents. All that the newspapers need do is to telephone the publicity manager for information and the latter immediately furnishes all details, except such names and addresses as would be of material assistance to ambulance chasers.

It should be mentioned in conclusion that the success of this publicity manager has been due, not only to his special training, but because he has been given a free hand in securing whatever information he wants. The department heads are not held responsible for any statement published about their divisions, as it is left to the judgment of the publicity manager to decide what ought to be printed. This policy avoids all friction and misunderstandings as to authority. The publicity manager is an attaché of the president and is responsible solely to him.

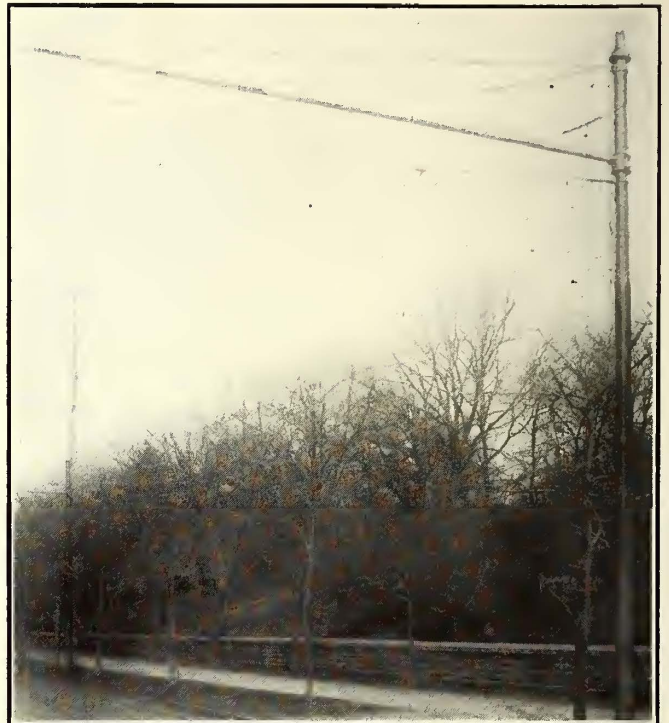
BROOKLYN LINE DEPARTMENT—EFFICIENCY FEATURES OF CONSTRUCTION AND MAINTENANCE

The scope of the line department of the Brooklyn Rapid Transit System is so large that a full description of the constructional and maintenance features of the overhead trolley alone cannot be presented in one article of reasonable length. The history of the iron-bar overhead construction devised by

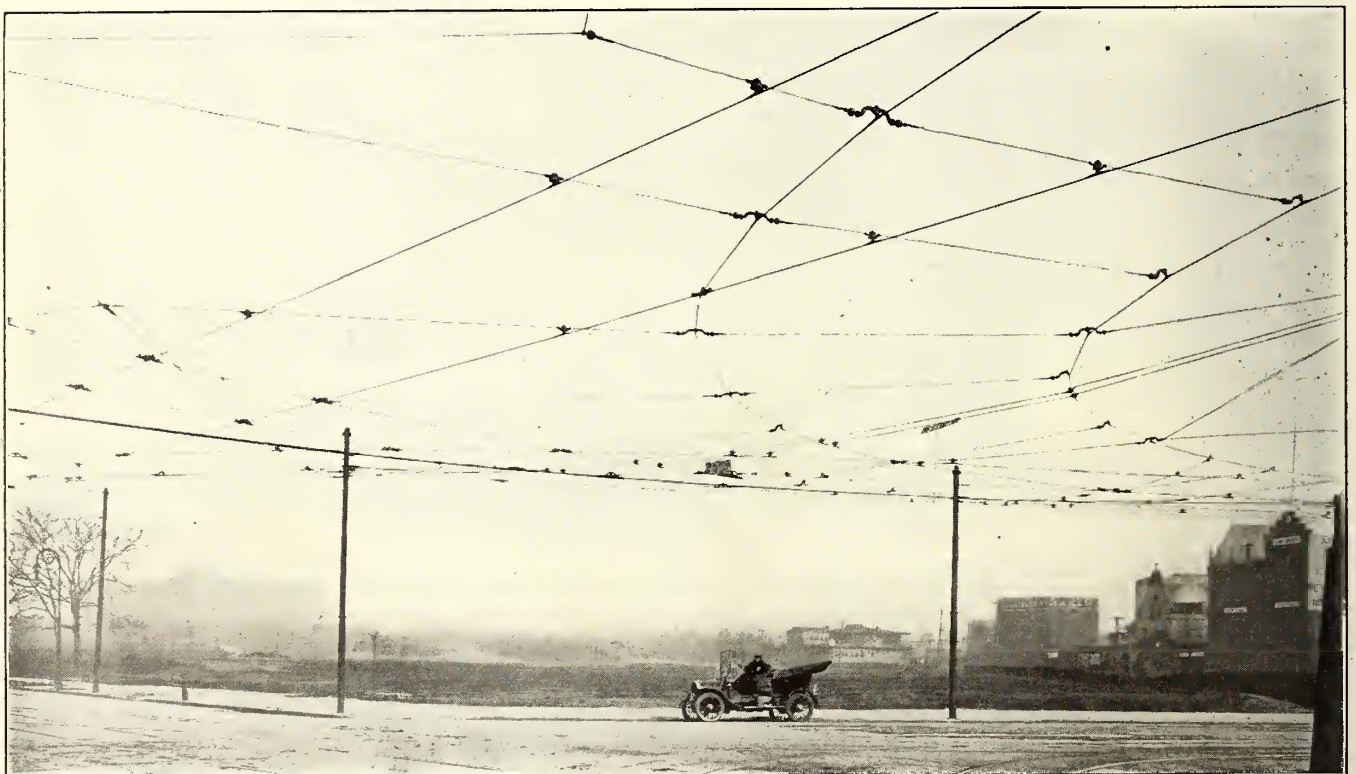
system of records for keeping account of the material used and the line work done by the department. Other articles will take up the work, equipments, and reports of the regular construction and emergency crews; specifications for material;



Brooklyn Line Construction—Bracket Over Double Track Near Sugar Refinery



Brooklyn Line Department—Long Bracket Construction at Prospect Park Circle



Brooklyn Line Department—Overhead Work at Flatbush Avenue and Malbone Street at Crossing with Coney Island & Brooklyn Railroad

this company and its overhead work at bridges have already been described in the articles published in the June 11 and June 18 issues of the ELECTRIC RAILWAY JOURNAL. The present article will deal with the construction used for the ordinary type of overhead trolley lines, together with an explanation of the

experimental installations; manufacturing and testing methods; third-rail construction; lighting; signals; telephones; etc.

LINE AND POLE CONSTRUCTION

Of course, by far the greater part of the overhead construction in Brooklyn, is of the span type as in all large cities. There

are many special situations, however, where brackets must be used. One example on page 136 shows some long bracket construction near the Havemeyer & Elder sugar refinery. This construction was installed on account of the heavy trucking as it avoids setting a second series of poles. Another example of long bracket construction is offered by the installation at Prospect Park Circle on Flatbush Avenue. An illustration in

and then protected with a cement jacket to a height of about 2½ in. above the surface of the ground. This practice is considered particularly valuable because it prevents further corrosion at a place which cannot be properly protected in any other manner. It has been noted that some poles which were reinforced with external sleeving require attention after some time owing to the fact that the disintegration of the sulphur pack-



Brooklyn Line Department—Double Trolley Wire on Brooklyn Bridge Incline

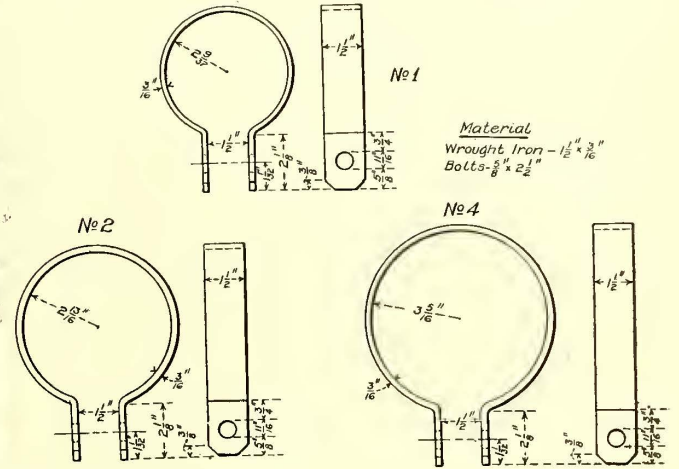
this column shows the bracket construction adopted for right of way operation in high-class suburban territory. The poles are of octagonal form, 30 ft. long and are painted green. The bracket pipe projects through the wood and is stopped by a pin set cross-wise in the pipe. The clearance over the rails is about 17 ft. Another view, on this page illustrates the combination span and bracket construction with steel poles as used at the Sheepshead Bay station of the Brighton Beach line where the change from third-rail to overhead construction is made. The same poles carry the spans over the inside express tracks and the brackets over the outside local tracks of this division.

The general pole construction in Brooklyn consists of No. 2 iron or steel poles 30 ft. high and made up generally of 5-in., 6-in. and 7-in. sections with occasional poles of 6-in., 7-in. and 8-in. sections for junction points, etc. The 30-ft. pole is high enough to carry feeders so that length was made standard in preference to 28 ft. Corroded poles are reinforced with concrete and steel rods internally according to a method invented by C. E.



Brooklyn Line Department—Overhead Work on Right-of-Way in Suburban Territory

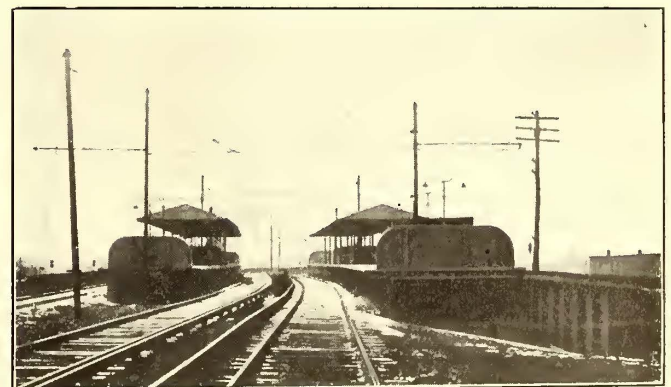
Roehl, electrical engineer, and H. H. Hilborn, line superintendent, Brooklyn Rapid Transit Company. This method and its results have been described in two earlier articles—one in the *ELECTRIC RAILWAY JOURNAL* of Oct. 10, 1908, and the other in the issue dated April 3, 1909. The Brooklyn company has reinforced about 2000 poles in this manner since August, 1908. When a pole is overhauled it is carefully scraped and painted



Brooklyn Line Department—Standard Wrought-Iron Bands for Trolley Poles

ing permits a pocket to be formed for the collection of water. Rusting, therefore, begins anew in the space between the outer sleeve and the pole. A drawing on this page presents details of the standard wrought-iron pole bands. They are made for several diameters, are carefully finished to be free from sharp edges and are well painted with one coat of red lead and oil before installation.

Rehabilitated and other poles are coated with Smith's durable metallic dark green paint. It has been found that paints cheaper than this are practically worthless and that it is more economical to use a high-grade paint than attempt to effect a small initial saving. Once the poles are properly painted, they will remain presentable for 10 years except in the vicinity of chemical works. The company has approximately 20,000 poles on the system and at present a special pole-painting gang of men under a foreman is kept busy whenever the weather permits. It has been found advisable to set a standard for the number of poles to be painted daily after making allowance for varia-



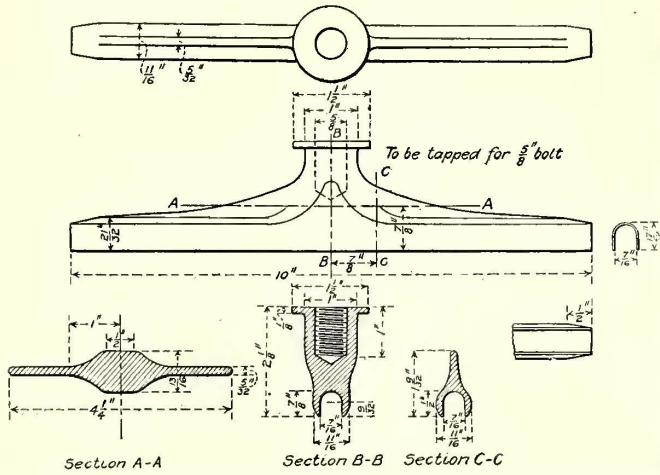
Brooklyn Line Department—Combined Span and Bracket Work at End of Brighton Beach Third-Rail Division

tions in pole fittings and the distances the men have to go to start their work. The men use a special form of low vehicle known as a jigger wagon and a ladder which has a wide base and a special top fitting to permit the ladder to rest securely against the pole. Other ladders would tip and throw the men to the sidewalk if they were inclined to reach around the poles. A tower wagon with one or two tables would not be

practicable for painting poles in many Brooklyn locations partly on account of the narrow space between the rails and the curb and partly on account of trees.

EARS, FROGS AND OTHER DETAILS

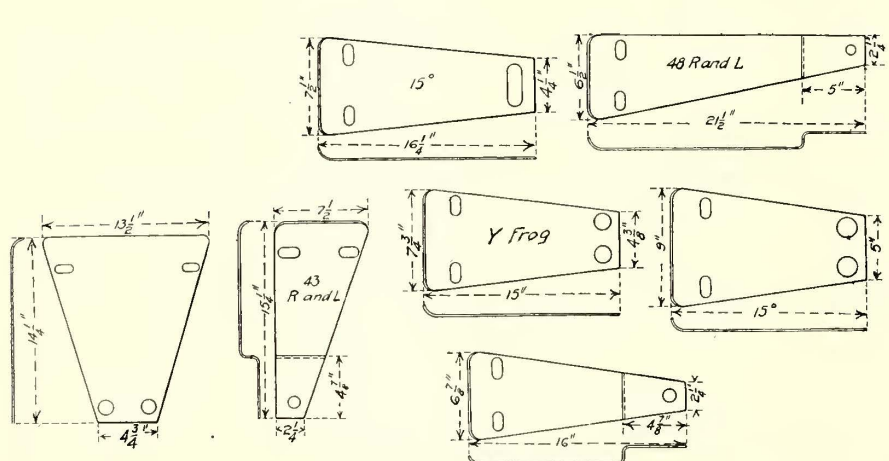
Below is a drawing of this company's standard ear. The special feature of this ear is the generous amount of metal used in the sides of the groove as is shown by section C-C. This ear is only 10 in. long, or about 5 in. shorter than the ear used



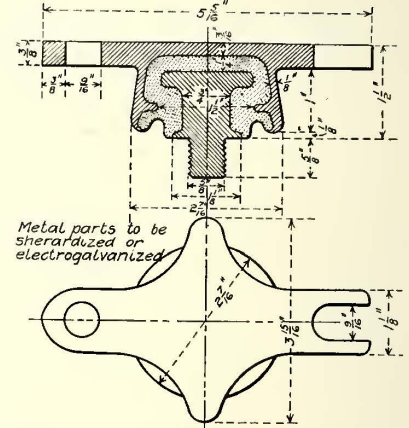
Brooklyn Line Department—Standard 10 in. Ear for No. 000 Wire



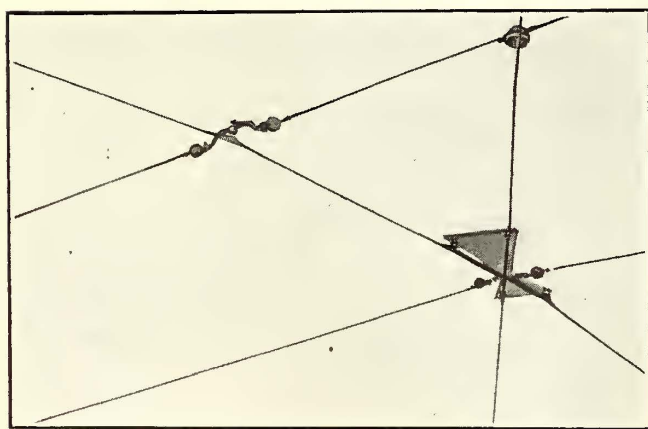
Brooklyn Line Department—Overhead Construction for Combined Switch and Cross-over at Coney Island



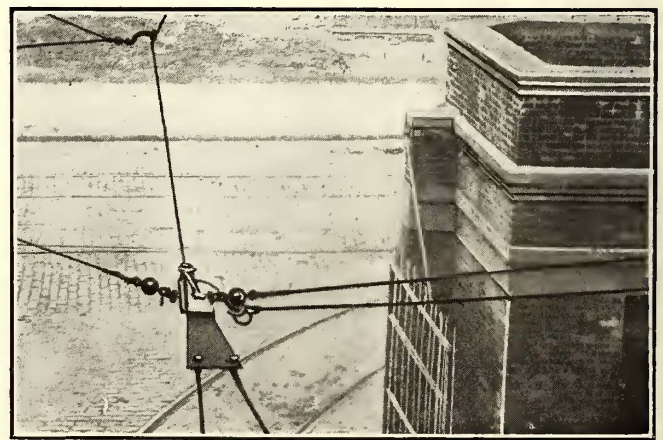
Brooklyn Line Department—Types of Frog Guards



Brooklyn Line Department—Trough Trolley Hanger



Brooklyn Line Department—Diagonal with Frog Pan



Brooklyn Line Department—Pan Guard for Left-Hand Frog

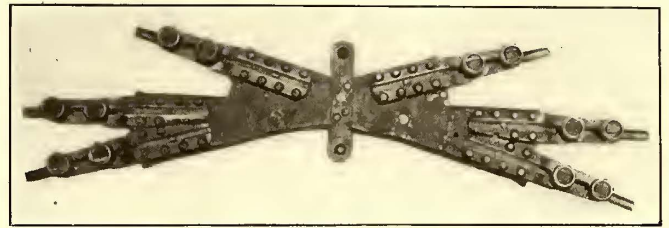
by many other railways. The Brooklyn ear, however, has the same amount of metal as usual in the 15-in. type, but it is distributed to better advantage for securing a longer life. No trouble has been experienced from the wire crystallizing or breaking off at the ends. The drawing mentioned gives the

data for a No. 000 wire. The other standard wire sizes, of course, have grooves of different dimensions. On page 139 is a detail drawing of the standard splicing ear used for No. 0 wire. The most interesting point about this ear is the free under-run secured by making the splicing with this casting.

The wire is inserted through a hole as shown, is bent over and secured by means of a wedge and nut. The bottom of the ear is slightly arched so that when the stress is placed on it the under-run becomes practically a straight line. These ears have proved very satisfactory and while they cost almost twice as much as some other types, their life is considerably longer and

made of wrought iron to which are riveted brass end castings with which the wire is held in place.

The overhead construction over a combined slip switch and crossing in the Coney Island terminal yard is illustrated on page 138. Two standard Y-frogs about 3 ft. apart are employed for the purpose and both trolley wires are in use between the frogs.

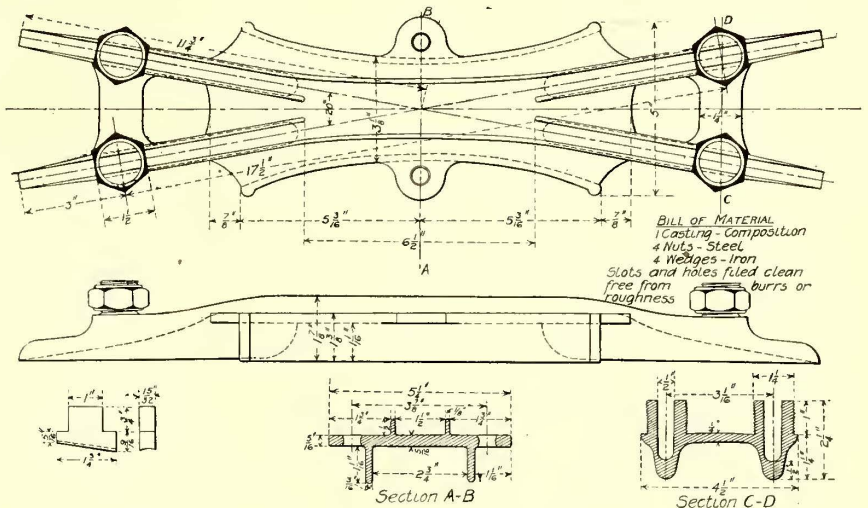


Brooklyn Line Department—Bottom of Three-Way Diagonal

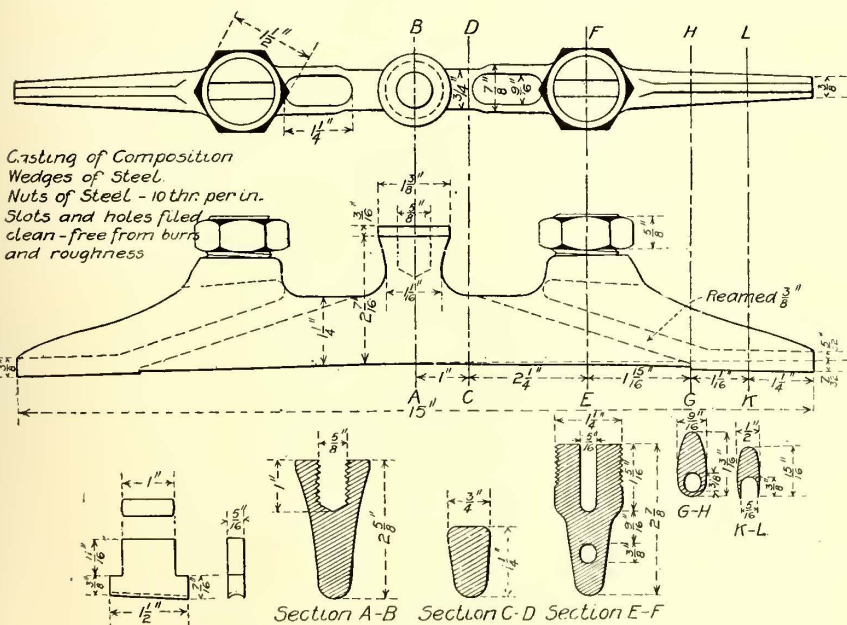
Brooklyn Line Department—Top of Three-Way Diagonal

they do not cause the wire to break at the ends of the ear. In the ordinary types if the wire is not soldered it will usually pull out and if it is soldered the heat required to solder the wire effectively may be so great because of the large amount of metal in the ear that the wires will become brittle at the end of the casting and eventually break at that point. These ears have been in use since April, 1909, without a single failure. Their life is further increased by installing a short piece of U-shaped copper tubing so as to cover the ear and a short section of wire on each side.

The standard trolley hanger shown in detail on page 138 is designed to bring the trolley wire as close as possible to the trough to prevent the trolley wheel getting between the trough and the wire. The company uses less insulation than is customary in mine



Brooklyn Line Department—20 deg. Diagonal for No. 0000 Wire



Brooklyn Line Department—Splicing Casting for No. 0 Wire

hangers because the trough is drier so that it is not necessary to have so much leakage surface.

A 20 deg. diagonal for No. 0000 wire also is presented on this page. This diagonal is used with two pull-off rings which have been found sufficient, although the general practice appears to demand four pull-off rings. Two half-tones on this page also show the top and bottom of a three-way diagonal, which is

This particular installation gave entire satisfaction all of last summer, whereas there was much trouble before the present method was installed.

A cut on page 138 shows the pan-guard for a left-hand frog as installed in the yard of the track department headquarters on Nosstrand Avenue. This pan-frog is made out of wrought iron and is held in place by three attachments. Two of these are ears clipped on each of the wires and attached to them with small stud bolts. The third connection is by means of a bolt in the frog. This construction has proved very successful in preventing trolley poles from becoming wedged in the crotch formed by the two trolley wires. It also helps to maintain the alignment of the trolley wires at the frog. Diagonals are protected in the same manner with pan-guards of the proper length to fill the space between the two wires as illustrated on page 138.

MAINTENANCE RECORDS

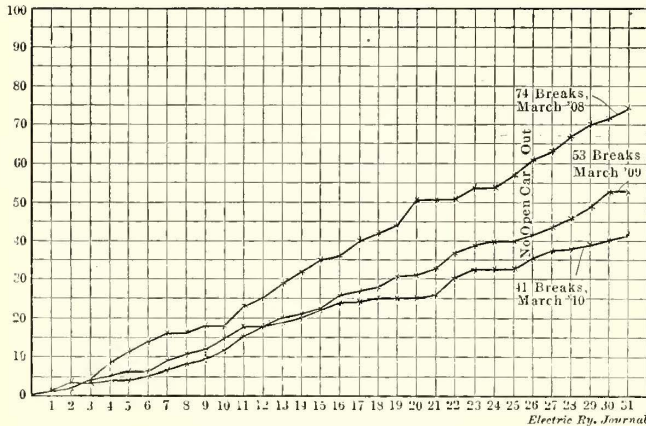
Micrometer measurements to determine the wear of trolley wire are made at stated intervals according to the length of service of the installation. At places of heavy traffic, as at the Brooklyn Bridge, such measurements are made as often as every 3 months. Span wires are tested for grounds every 6 months. A car is used in testing spans but instead of attaching a wiper contact to the trolley pole, it has been found more satisfactory to have a man sit on the top of the car and hold the wiper in his hand. This insures that perfect contact will be

made with the span at whatever maximum speeds are allowable on the line under test. There is connected to this wiper contact a voltmeter which is read by a second man who carries a blueprint of the route. The location of the defective spans is indicated according to this print together with a statement as to the leakage. The locations of faulty spans are telephoned to the line department operator from the first convenient station so that repairs can be made immediately. By

LINE DEPT		TROLLEY WIRE INSPECTION..... 10.....									
LOCATION		WIRE		CONDITION						REMARKS	
Stn	Diam.	Splices	Ears	Spans	Curves	Trough	Breakers	Poles			
SPECIFY WIRE AS COPPER OR PHONO											
INSPECTOR											

Brooklyn Line Department—Trolley Wire and Apparatus Inspection Blank

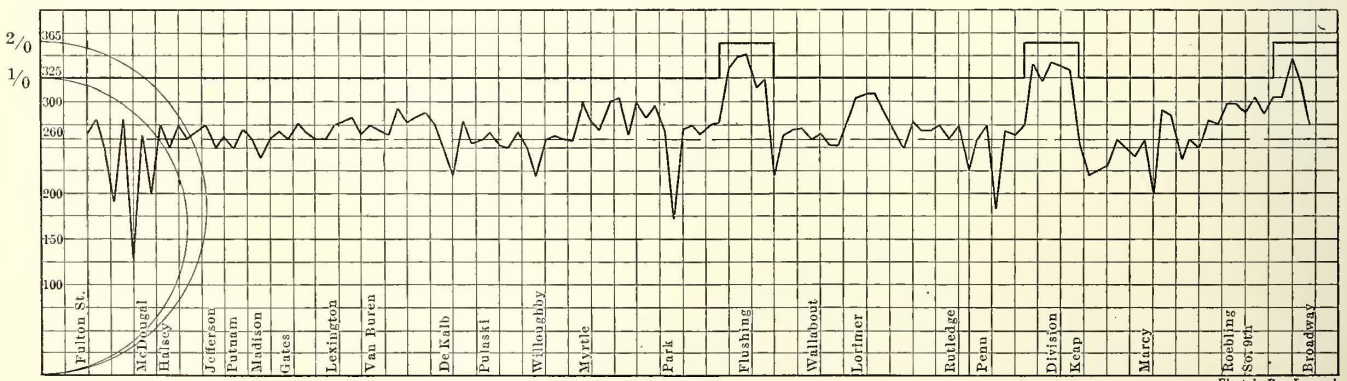
this method of testing over 60 miles of street are covered in a working day. The ears are also taken off at stated intervals as wire wears faster under the ears than at other points on



Brooklyn Line Department—Three-Year Record of Wire Breakage

straight line. The blank used in connection with this work is reproduced together with the general reports on the condition of troughs, spans, ears, breakers, poles, etc.

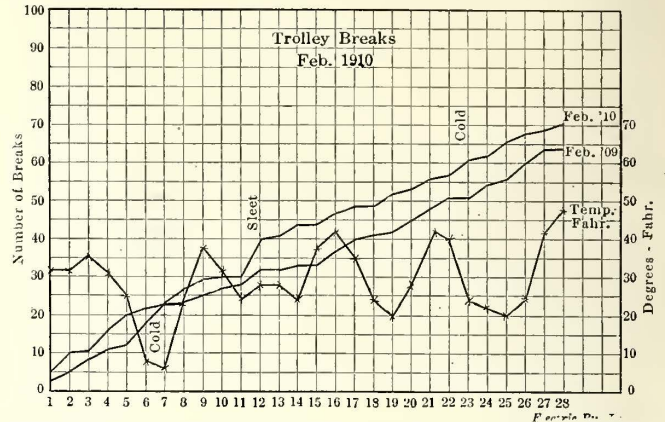
Every month there is made up a report covering the breaks in trolley wire, their causes, the amount of material required for replacement and the length of the delay caused in each instance. This form is assembled from the daily reports of each line crew.



Brooklyn Line Department—Graphic Record of Wire Wear

Every break is recorded and analyzed to determine if the breakage is due to defective workmanship, defective material, method of operation or poor inspection. It has been found that the breaks are most frequent at the beginning and close of the summer season for at these times a large number of stored cars are suddenly placed upon the line. Naturally it

takes a few days before the stiffness of the trolley bases works itself out. The effect of contraction in 'cold weather' is usually considered the principal cause for the increased number



Brooklyn Line Department—Daily Record of the Breaks for February of 1909 and 1910, and Temperature for 1910

of wire breakages in winter over those of the summer months. It is probable, however, that on lines where no trolley catchers are employed, as is the case in Brooklyn, part of the increase

DEPARTMENT		
DAILY REPORT OF FORCE ACCOUNT		
		191
COMPANY		
Auth. No		ORIGINAL
Location		
NO. OF MEN	CLASSIFICATION	HOURS
Timekeeper		
CORRECT FOR LABOR		

Brooklyn Line Department—Report Blank to Cover Work for Outside Parties

in trouble is due to the conductors' neglect of the trolley pole in cold weather.

A cut on this page shows graphically the wire breakages for three successive years on over 500 miles of line measured as single track. It may be added that the breakage totals include breaks in car-house and yard wires. Of course, wire troubles should be extremely rare in such situations as the crews or

shopmen are in position to give their undivided attention to the handling of the pole. Nevertheless, breaks do take place there and it is deemed proper to record them. Another cut on this page presents the graphic method of showing the extent of wire wear throughout a given length of route, one measurement being taken for each span. It will be observed that semicircles

representing the full diameters of No. 0 and No. 00 trolley wire are placed at the left of the drawing. By projecting the various thicknesses from the proper semicircle as a scale, there is obtained for a series of measurements a curve which betrays at a glance the exact condition of affairs throughout the line. It has been noted from the curves that the greatest wear occurs at the compulsory stops such as "School" and

When work is done for an outside party as, for example, where certain wires and cables are shifted for some contractor, the blank, "Daily Report of Force Account," shown on page 140, is used. This form is rendered in triplicate, one copy going to the comptroller, one copy to the customer and one to the files of the line department.

ELECTRIC LINE.

Standard monthly maintenance	Horses on hand
Payroll maintenance	Purchased
Request maintenance	Sick
Add. and bett.	Died
Construction	Sold
Trolley poles, installed	Cost per horse, per day
Removed	Electric lights, installed
Reconcreted	Removed
Painted	Repaired
Span wires, installed, ft.	Telephones in use, N. Y. & N. J. office
Taken down	Resident
Trolley wire, installed, ft.	Automatic
Removed	Pony
Torn down, accidents	Installed, N. Y. & N. J. office
Overhead feeders, installed, ft.	Resident
Taken down	Automatic
Underground feeder, installed, ft.	Pony
Repaired, ft.	Repaired, N. Y. & N. J. office
Blow-outs, No.	Resident
Third rail, installed, ft.	Automatic
Repaired	Pony
Torn down	Cost, N. Y. & N. J. office
Stable, standard monthly maintenance	Resident
Payroll, maintenance	Foreign calls, cost
Add. and bett.	Received from employees
Construction	

ELECTRIC LINE POLE REPORT					
FROM		TO			
INSTALLED		IRON		WOOD	
LOCATION	No.	Size	No.	Size	CHARGE
REMOVED					
POLES ON HAND					
IRON No. 1					
No. 2					
No. 4					
WOOD					
(Signed) _____					SUPERINTENDENT.

Brooklyn Line Department—Items Detailed in Monthly Report to the General Manager

Brooklyn Line Department—Report on the Installation and Removal of Poles

"Fire" instead of occurring at the corners where stops are made only to take on or discharge passengers. On the whole, these micrometer measurements are found to be of the utmost

The form covering the monthly report to the general manager is itemized as in the reproduction except that the original is ruled vertically to separate the figures for the surface and

(MAINTENANCE CONSTRUCTION OR BETTERMENTS ?)				DEPARTMENT																			
				PAY ROLL, WEEK ENDING _____ 190																			
AUTH. OR REQUEST	LOCATION	CHARACTER OF WORK	TOTAL AMOUNT	CHARGEABLE TO Accounts Nos																			
SIGNED _____ TIMEKEEPER.																							

Brooklyn Line Department—Weekly Report to the Comptroller

value not only in determining the condition of the wire but also the condition of the track in cases where abnormal wire use is discovered where least expected.

bridge-elevated lines. It will be observed that the activities of the line department embrace also the care of underground feeders, the third-rail systems, electric lights and telephones. The style of weekly report made out by the timekeeper of the line department for the auditor is shown above. This

Owing partly to grade changes in certain outlying districts, the line department has to cut its trolley wire on an average of

ELECTRIC LINE TROLLEY-WIRE REPORT							
INSTALLED				WEEK ENDING _____			
SIZE	STREET # LINE	FROM	TO	WEIGHT POUNDS	DISTANCE	COST	CHARGED TO
REMOVED							
		STEEL			COPPER		
		1/0	2/0	3/0	1/0	2/0	3/0
Lbs. of wire on hand at beginning of week.							
" " received during week. Order No.							
" " used during week.							
" " on hand at end of week.							
(Signed) _____							SUPERINTENDENT.

ELECTRIC LINE FEEDER-WIRE REPORT							
INSTALLED				WEEK ENDING _____			
WIRE	C. N.	ON	FROM	TO	FEET	CHARGED TO	
REMOVED							
4 0 Weatherproof on hand at end of week							ft.
500,000 " " " " " "							"
1,000,000 " " " " " "							"
(Signed) _____							SUPERINTENDENT.

Brooklyn Line Department—Stock Report on Trolley Wire

Brooklyn Line Department—Stock Report on Feeders

once a week to permit the moving of houses across the tracks. The labor and depreciation of the wire due to this cutting are charged against the house owners, a suitable deposit being secured in advance before the work is done.

form is made out for maintenance construction or betterments. The several columns give the general manager's authorization number for the work, the location and character and the standard account numbers to which the different items of each job

are chargeable. All trolley wire run during the week is summarized from the line crews' report reproduced, which also gives details covering the amount of wire removed. The bottom of the report shows the quantity of different sizes and types of wires on hand at the beginning and end of the week.

The weekly pole report shown gives the type and size of pole installed, together with the location and the account or authorization number to which the work is charged. The table at the bottom of the sheet shows the number of poles on hand. The feeder-wire report names the streets on which feeder jobs have been carried out during the week, giving the lengths and sizes used and the proper charge account number. As in the wire report, reference is made to amounts removed and to the stock conditions.

The three stock reports just described have been found of considerable value, as complete information is at hand always to permit work to be planned with the greatest economy.

REPORT OF THE COMMITTEE OF FIFTY IN DETROIT

An abstract was given last week of the first portion of the report of the committee of fifty appointed to investigate the street railway situation in Detroit. An abstract of the concluding portion of the report follows:

COST OF SERVICE

The committee was met by the statement of officials of the company that no information was available as to the cost of construction of roads built by underlying companies that were merged into the Detroit United Railway on Dec. 31, 1900, as the books containing this information were destroyed when the Jefferson avenue car house was burned, Dec. 30, 1901.

The operating expenses, as shown by the Detroit United Railway's books, apply to the entire system, that is, the city lines, and the Wyandotte, Orchard Lake, Pontiac and Flint

erally have not charged off for depreciation, is evidence that they consider the depreciation to be fully covered by charges to operating expenses."

Applying the interest on the investment as determined by the appraisals, to the net cost as shown by the report of the accountant for the committee, W. D. Gridley, and the result is as shown in Table VI on this page.

The report of Mr. Gridley, the accountant, as made to the committee, says in part:

"As there is no separation on the books of the Detroit United Railway of the expenses of operation of the city lines from the interurban divisions of the Detroit United Railway, it is necessary for the purposes of this inquiry—to ascertain the cost of carrying a passenger for the years 1906, 1907 and 1908—to prorate these operating expenses. The unit used in arriving at the percentage on which to prorate the expense is that of car-mileage.

"I have treated the items of subsidiary earnings or income, aside from passenger fares, as deductions from expenses, on the theory that the company's business is that of carrying passengers. It was for that purpose that the rights and privileges granted by the city were given, and furthermore, the expenses incurred in earning income from sources other than from carrying passengers, are included in the operating expenses. It follows then, that to arrive at the cost of carrying a passenger these outside earnings should be deducted from the total operating expenses.

"The next step is the prorating of the operating expenses on the basis of the car-mileage.

"The total car-mileage for 1906 was 22,274,234, of this 19,330,555 was city, and 2,943,679 interurban. The city percentage was then .867843. Prorating the operating expenses, less the subsidiary earnings, on this basis and the amount apportioned to the city lines would be 2,451,716.82.

TABLE VI.—COST OF CARRYING A PASSENGER FOR YEAR 1908, AS COMPILED BY COMMITTEE ON COST OF SERVICE, DETROIT.

		City percentage on car Mileage basis .878707	Cost Per revenue Passenger 108,393,502	Per Passenger 148,840,835
Operating expenses and deductions from income.				
Operating expenses		\$3,482,002.23		
Chartered cars	\$23,850.70			
Express	187,827.58			
Mail	4,557.48			
Advertising	20,498.14			
Rents	6,418.89			
		243,152.79		
		\$3,238,849.44	\$2,845,999.67	.026256
Investment as determined by appraisals				
Physical Property	\$11,284,536.88			
Franchise property	2,810,615.24			
6 per cent per annum.....		845,709.12	.007802	.005682
Total.....	\$14,095,152.12	\$3,691,708.79	.034058	.024803

divisions together. In order to determine the city's portion of the operating expenses, the unit of car-mileage was used. After deducting the subsidiary earnings from chartered cars, express, mail, advertising and rents from the operating expenses, the remainder was pro-rated on the car-mileage basis between the city and interurban lines. The city portion was then divided by the number of revenue passengers carried, and in a separate column by the total passengers carried.

In the final figures the committee added 6 per cent on the appraised value of the physical and franchise property as a reasonable and fair return on the capital invested.

The committee left out of consideration the matter of depreciation, stating that it could not determine whether since Dec. 31, 1900, there had been a depreciation, or an appreciation, of the property. The matter of depreciation had not, until during the last three years, been taken into account on the books of the company. The committee adds that the company is now "apparently not treating it on a scientific basis. We do not feel that we can state with any degree of accuracy what percentage of depreciation, if any, should be considered in dealing with the cost. It is our opinion that the failure of the company to make any provision for depreciation, up to within the last three years, and the fact that street railway companies gen-

"The number of revenue passengers carried in the city during 1906 was 99,266,118. The cost per revenue passenger was then .024698.

"The total passengers carried was 135,682,957, the cost per passenger being .018060.

"There are, however, other deductions from income to be considered, such as interest on floating debt, interest on funded debt, and depreciation, for which provision must be made, so that in the schedules I show:

"First. Cost per revenue passenger on basis of operating expenses less subsidiary earnings.

"Second. Cost per revenue passenger, same basis and including pro rata proportion of interest on floating debt.

"Third. Cost per revenue passenger, including foregoing, and pro rata proportion of interest on funded debt.

"Fourth. Cost per revenue passenger, including foregoing, and pro rata proportion of amount set aside by the company for depreciation.

"In parallel column are shown costs per passenger, on basis of total passengers, that is including with revenue passengers those carried on transfers and employees' tickets and passes.

"No provision is made in this calculation for dividends on capital stock.

"In the matter of depreciation, there being no basis of cost to proceed upon, we are obliged to adopt the figures used by the company, which we have done."

The computation showing the cost of carrying a passenger in 1908, as made by Mr. Gridley, is published herewith in Table VII.

TABLE VII.—COST OF CARRYING PASSENGER, 1908, AS COMPUTED BY W. D. GRIDLEY, FOR COMMITTEE ON COST OF SERVICE, DETROIT.

Operating expenses and deductions from income.	City percent- age car mile- age basis	Per rev- enue passenger	Cost.	
			Per pas- senger	
Operating expenses878707	108,303,502	148,840,835	
Chart'd cars .. \$23,850.70				
Express 187,827.58				
Mail 4,557.48				
Advertising .. 20,498.14				
Rents 6,418.89				
	243,152.79			
Total	\$3,238,849.44	\$2,845,999.67	\$0.026256	\$0.019121
Including with above interest on floating debt.	182,408.91			
	\$3,421,258.35	3,006,283.66	0.027734	0.020198
Including with above interest on funded debt.	956,390.00			
	\$4,377,648.35	3,846,670.24	0.035487	0.025844
Including with above depreciation	300,000.00			
	\$4,677,648.35	\$4,110,283.34	\$0.037920	\$0.027615
Car Mileage.				
City			21,067,368	
Interurban			2,908,043	
Total			23,975,411	
Percentage.				
City878707	
Interurban121293	
City Passengers.				
Revenue			108,393,502	
Employees and pass.			4,729,045	
Transfer			35,718,288	
Total			148,840,835	

Mr. Gridley also made a preliminary report regarding bonds, stocks and general matters to the committee on cost of service. This report shows the journal entries at the time of organization of the Detroit United Railway, and the entries that followed the later acquisition of various properties. Concerning other matters this report says in part:

"The American Street & Interurban Railway Accountants' Association classification of accounts provides that interest incurred in financing construction as well as discount on bonds sold shall be considered items of construction cost. Since the organization of the Detroit United Railway the following amounts have been capitalized from discount on bonds: 1905, \$1,308,922.84; 1906, \$2,000; total, \$1,310,922.84.

"Taxes and insurance are handled by pro-rating monthly the estimated yearly charges.

"The matter of the liability of the company for injuries and damages is handled by charging to operating expenses a percentage of the passenger receipts each month and crediting to injuries and damages sinking fund; the claims as settled being charged to this fund. During 1901, 1902 and 1903 the percentage used was 2 per cent; during 1904 and the first three months of 1905, 2½ per cent; for the remaining nine months of 1905, 3 per cent; and for 1906, 1907 and 1908, 3½ per cent. The balance to the credit of the fund on Jan. 1, 1909, was \$11,494.18.

"'Depreciation' is the term used to cover loss through wear and tear, and obsolescence, and to properly provide for it, the probable life, for the purposes of the enterprise of the property in use, must be determined. Thus in order to provide for depreciation on the amount of the original investment as shown by the books on Dec. 1, 1900, of \$23,000,000, it would be necessary to know the physical valuation of the property, and the probable life of it, and the franchise valuation, and the time it has to run, and then set aside yearly an amount sufficient to cover the declining value. But we do not know, and have found no way as yet of determining what the values placed upon these items were.

"The street car companies appear not to have definitely settled as to how the matter of depreciation should be handled, and no provision is made for it in the standardization of accounts as adopted by the Street Railway Accountants' Association.

"Until 1906, the Detroit United Railway had created no reserve for depreciation, but during that year \$250,000 was transferred from profit and loss to depreciation reserve, and in 1907 \$276,000 was transferred from income account to depreciation reserve, and in 1908 \$300,000 was similarly transferred. During 1908, \$137,385.47 of the cost of renewals of tracks and foundations was charged to depreciation reserve, leaving the balance to the credit of the fund on Dec. 31, 1908, at \$688,614.53.

"During 1906, the Detroit United Railway carried on all its city lines 99,266,118 revenue passengers, for which it received in fares \$4,271,593.93, an average per passenger of \$.04303. That year there was paid in dividends \$625,000, for interest on funded debt \$954,855.63, set aside or deducted from investment account \$250,000 for depreciation, and the surplus was increased \$148,635.09.

"During 1907 the city lines carried 108,715,417 revenue passengers, for which was received in fares, \$4,707,803.66, an average of \$.0433. That year \$343,750 was paid in dividends, \$954,990 interest on funded debt, set aside \$276,000 more to depreciation reserve and increase the surplus \$450,090.80.

"During 1908 the city lines carried 108,393,502 revenue passengers for \$4,692,548.08, an average of \$.04329, paid no dividends, paid interest on funded debt of \$956,390 (Schedule 6), set aside \$300,000 to depreciation reserve, \$200,000 to contingent liability reserve, and increased the surplus \$494,801.96.

"This brings the examination of the question of cost up to the point where it is necessary to agree upon some basis for the division between city and interurban lines of the operating expenses, interest on bond, depreciation, and earnings from other than passenger fares.

"It would seem that a fair unit for the division of operating expenses, and earnings outside of passenger revenue, which can be strictly separated, is that of car-mileage."

The committee on cost of service was: Henry Ford, Richard P. Joy, Joseph Boyer, John D. Wiley, John D. Cochell, Philip H. Gray and A. G. Studer.

SCHEDULES

The report of this committee says in part:

"We believe the Detroit United Railway is desirous of having a schedule that is as convenient as possible to fully meet the requirements of the people.

"The committee believes the time for workingmen's tickets, morning and night, should be extended at least 15 minutes.

"The speed of the cars, as well as the noise resulting therefrom, in some sections of the city, has been criticized. Realizing that the schedule must govern the speed of the cars, and believing that a lower rate of speed would not be satisfactory, we suggest that more care be given the cars, especially the trucks and wheels, to insure their good condition, which would result in less noise, and which would certainly be greatly appreciated by the public.

"The committee suggests that the schedule be arranged to best take care of the congested traffic at certain times of the day, especially in those sections where there are vast numbers of laboring people going to and from work. We realize there are times, however, when it is impossible to furnish sufficient cars to take care of immense crowds of people as satisfactorily as might be wished, but due consideration should be given to such conditions.

"Your committee recommends the consideration of an extension on the Jefferson avenue line, of a straight 5-cent fare to the city limits. This part of the city is developing into a very important manufacturing district, employing many workmen who object to paying a 10-cent fare each way. Many homes are also being erected in this section, and we believe the granting of a 5-cent fare to the city limits would not only be very acceptable to those living and working in that vicinity, but

that it would also aid very materially in building up that part of our city."

The names of the committee on schedules follow: George H. Barbour, E. A. Burch, James W. Thompson, C. V. Paster-nacki, Gabriel Chiera and Edward D. Brown.

EXTENSIONS AND REARRANGEMENT.

An abstract of the report of this committee was published in the issue of the *ELECTRIC RAILWAY JOURNAL* for May 22, 1909, page 949. The members of this committee were Dr. J. H. Carstens, W. W. Hannan, T. H. Simpson, Thomas E. Reeder, Thomas Neal, William C. Pasha, Charles P. Russell, Theodore L. Smith and Alfred A. Trites.

EXTENSIONS AND REARRANGEMENT

A majority and a minority report were presented on this subject. The majority report was signed by D. M. Ireland, Charles A. Dean, M. J. Murphy, Frank Kennedy and William Pasha. The report was adverse to municipal ownership, and said:

"Before any municipal undertaking may be classed as successful, two facts must be established to the satisfaction of the taxpayers.

"(1) Would a rigid system of accounting, with every legitimate expense charged to the utility operated rather than to some general fund, with proper allowance for interest on the investment, depreciation, obsolescence and sinking fund leave a balance upon the right side of the municipal ledger?

"(2) Is the standard of operation, service, wages and general up-keep such that it would be satisfactory to the people of an American city?

"Comparison of existing municipal street railway undertakings in foreign cities being found of little value for the purpose of our investigation, your committee has considered the subject under the following heads:

"(1) What will municipal ownership of the street railways of Detroit cost?

"(2) Can Detroit afford to make the investment

"(3) Is it desirable to assume the burden; to assume the responsibility of a costly experiment with no definite assurance that cheaper fare could be provided without affecting the quality of service?

"As the franchises of the Detroit United Railway, which expired on Nov. 14, 1909, covered only a part of the city system, unless an advantageous purchase of the remaining lines can be made by the city, municipal ownership can be only partial for at least 14 years, at least not unless the city shall engage in a costly work of paralleling such lines. Two systems would mean two fares in many cases now covered by transfer.

"In Detroit the amount which the municipalization of the street railway system would require would, when added to the present bonded debt, so largely increase the percentage of bonded debt to taxable property as to exclude the bonds from savings banks' investment.

"Immediate municipal ownership of Detroit's street railways would involve: The amount of the appraisal of the committee of fifty plus several million dollars for betterments and extensions, including the 57 miles of new track recommended by the committee on extensions and rearrangement, which are imperative if the city is to have proper service and which the Detroit United Railway or any other company would be required to assure the city in order to secure further operating privileges. In the matter of cost must be included the heavy demand which must be met in the not distant future for the construction of a subway as outlined by the committee on extensions and rearrangement, also interest on the bonds issued to effect the purchase, a loss of taxable property to the assessed value of the system, which paid taxes in 1908 amounting to \$134,842.63. The enlarged field for damage claims against the city would be found no inconsiderable item of expense.

"As a municipality we are seemingly pushed to the limit of our resources to perform such primary, non-contentious municipal undertakings as, having no element of profit in them, cannot be left to private enterprise. Do taxpayers desire to assume the responsibility in the hope of securing cheaper transportation?

"By placing the street railway system under municipal control a large body of municipal employes is created, each member having a vote. The management is made to reside in a body politic, subject to change at least every two years. Do these conditions indicate a fair probability that such efficiency and economy in administration and operation will prevail as will serve to reduce fares in a sufficiently large degree to warrant and render advisable pledging the faith and credit of the city; increasing the bonded debt and tax rate?

"No one will claim that an intricate business like the operation of a great railway system should be left to the decisions of bodies of men inexperienced in the particular problems involved. Men competent to make profits cannot afford to give their services to secure profits for a city. Nor is the management of a street railway calculated to draw men into the service for the sake of honor, since the occupation is beset with difficulties and anxieties. Responsibility for life and property is in the highest degree burdensome, and the dealings with an army of employees on the one hand and with the public on the other require tact and experience, which command a high price in the labor market.

"With profit to the individual as an incentive to economy in administration eliminated; with our municipalities as at present organized, tenure of office brief and with politics entering so largely into municipal elections, it is a matter of grave doubt in the minds of your committee as to whether the conduct of an undertaking requiring experience for efficient management, could be operated by the municipality to the profit either of the taxpayer or the car patron.

"Summing up the situation as it exists in Detroit to-day, your committee believes that the municipal ownership of street railways at the present time would:

"(1) Largely increase the city's bonded debt.

"(2) Increase the tax rate.

"(3) Diminish the amount of taxable property.

"(4) Increase the city's liability for damage claims.

"(5) Benefit neither taxpayer, employee nor patron.

"(6) So increase the tax rate as to react to the detriment of the city's industrial expansion.

"(7) Promote increased political manipulation.

"We believe that for Detroit to engage in street railway operation would be to enter a field better adapted to private than public undertaking. To enter upon an experiment certain to be costly and not certain to be successful, a course most unwise, from a business standpoint and which, in the opinion of your committee, should not be undertaken."

MUNICIPAL OWNERSHIP—MINORITY REPORT

The minority of the committee, W. D. Mahon and J. D. Cochell, presented a report signed by the former favoring municipal ownership. The minority report says that there is no hope for relief in the grant of a new franchise to the present company and recommends that the City Council "grant no more franchises for the purpose of operating privately owned street railways to any person, corporation or company and make arrangements to at once inaugurate and establish a thorough system of municipally owned street railways covering the entire city."

TAXATION AND PAVING

An abstract of the report of this committee was published in the issue of the *ELECTRIC RAILWAY JOURNAL* for May 22, 1909, page 949. The members of this committee were Melvin Henry, Howard C. Beck, Theo. H. Eaton, Fred C. Hees and George H. Lyons.

A proposal has been adopted by the Swedish Government for the electrification of the State Frontier Railway in the north of Sweden, the power to be derived from the Porjus waterfall, near Gellivare, which is stated to be capable of yielding 50,000 hp—about 16,000 hp in excess of the requirements when the railway is working in normal conditions. A power station is to be erected at Porjus, and a railway is to be constructed from that point to Mount Gellivare.

MEETING OF CENTRAL ELECTRIC TRAFFIC ASSOCIATION

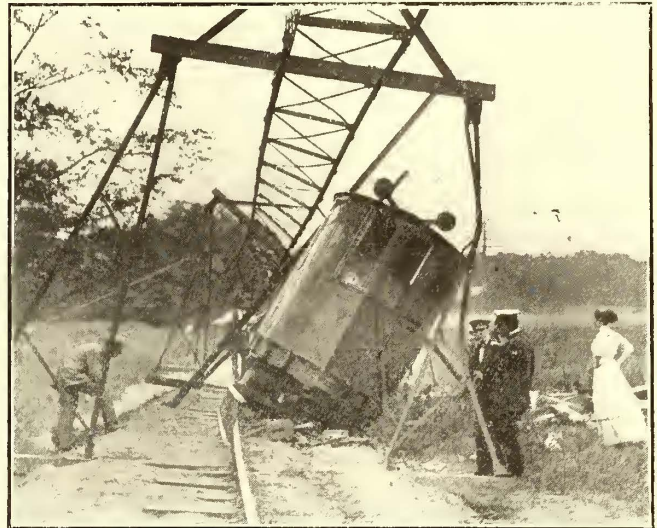
The meeting of the Central Electric Traffic Association which was held at Dayton, Ohio, on July 19, 1910, was well attended. The committee appointed at the last meeting of the association to consider the advisability of the association issuing a map reported progress. The committee appointed at the last meeting of the association to consider the publication of an interurban railway guide by the association also reported progress and submitted an outline of several propositions looking to the publication of such a guide. Those in attendance also discussed at length the best methods of complying with the terms of the new Federal law creating a court of commerce. It was decided to hold the next meeting at the Hotel Anthony, Ft. Wayne, Ind., on Aug. 16, 1910.

ACCIDENT ON NEW YORK MONORAIL LINE

On Sunday afternoon, July 17, a car of the Pelham Park & City Island Railroad monorail line was derailed while going around a curve at a speed of about 30 m.p.h. There were about 100 passengers in the car at the time although its seating capacity was only 50. Fortunately, the car was not running along an embankment so that while the passengers were thrown one on top of the other on the floor of the car as it toppled over against a bent, only five or six were badly injured.

The line on which this accident occurred is a single rail line extending 3 miles from the Bartow (N. Y.) station of the New York, New Haven & Hartford Railroad's Harlem River branch through Pelham Bay Park to City Island. The route was formerly operated by horses. The franchise for the monorail electrification was obtained a couple of years ago, but owing to various delays in securing the construction material, no work of consequence had been done up to within a few months of the time the construction permit was to expire. As a result, the line was rather hastily built in certain places. It was intended, for instance, not to run the car until the T-section single running rail had been spiked to ties set in concrete,

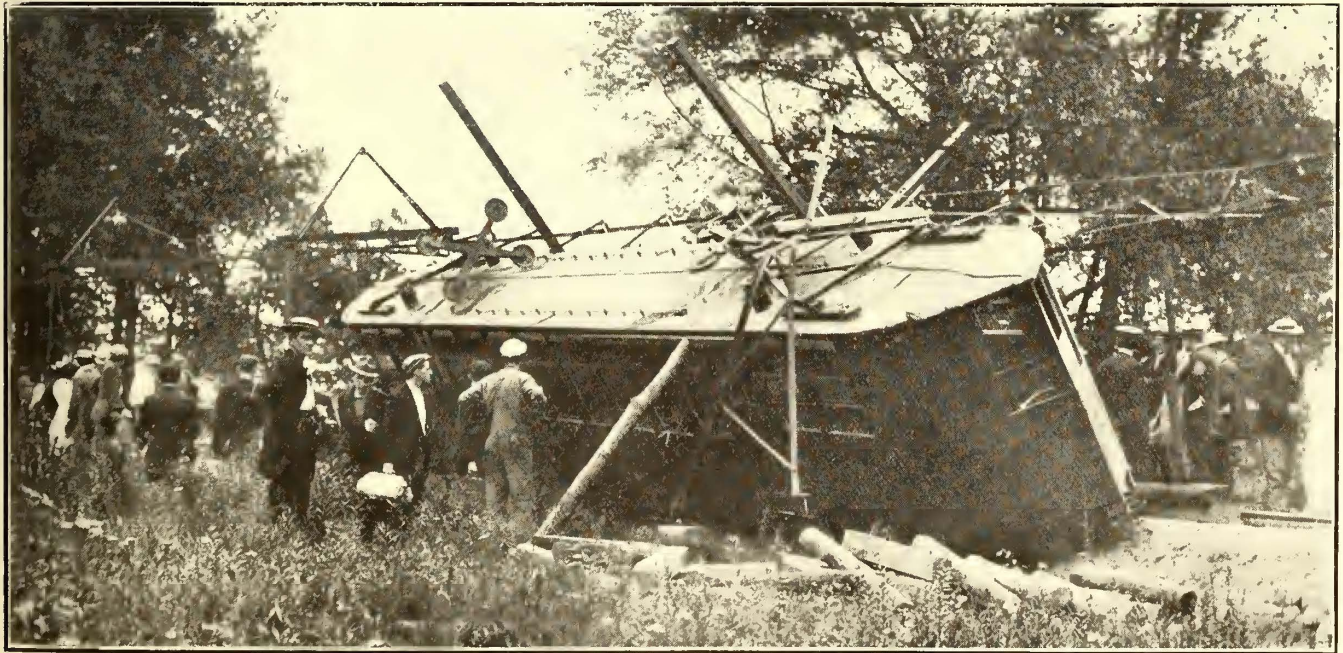
the work according to the engineering plans, so the constructors made use of some much lighter bents which were used in 1907 by the monorail company on a line at the Jamestown Exposition. This overhead construction consisted of a pair of current-carrying latticed guide rails suspended from wooden bridges. The latter were carried on steel bents bolted to wooden beams instead of being set in concrete as intended. Appar-



View of Car as it Fell Over Against One of the Bents

ently this construction was not heavy enough to bear the strain imposed upon it by the two trolley trucks each of which carried four combination guide and current wheels bearing horizontally against the guide rails. As shown in the illustrations, the overhead construction at the scene of the accident was considerably distorted by the tipping of the car and the ties on the left side of the rail were forced upward.

The car dropped against one of the bents, which fortunately



Side View of the Monorail Car, Showing Damage to the Overhead Structure

but instead of carrying out this construction the car was run over ties laid in plain soil. The result was that when the car went around the curve, the ties tipped up on one side and so contributed to the derailment. However, the principal reason for the derailment appears to have been the lightness of the overhead construction. For some reason, all of the bents intended for this installation did not arrive in time to complete

did not break or pull away from the bottom beam to which it was bolted. The damage to the car itself was very slight. It is expected that the damage will be repaired within a few days but to avoid future accidents, experimental runs will be made for about a month. The car was built and equipped in accordance with the Tunis monorail system which was described on page 75 of the ELECTRIC RAILWAY JOURNAL for Jan. 9, 1909.

MEETING OF THE COMMITTEE ON CITY RULES

The committee on city rules of the American Street & Interurban Railway Transportation & Traffic Association held a meeting at the office of the association, 29 West Thirty-ninth Street, New York, on July 16. Those present were: R. E. Danforth, Public Service Railway, Newark, N. J., chairman; H. H. Hunt, Stone & Webster, Boston, Mass.; L. H. Palmer, Metropolitan Street Railway, New York; D. A. Hegarty, Little Rock Railway & Electric Company, Little Rock, Ark., and F. R. Fuller, Portland Railway, Light & Power Company, Portland, Ore.

The meeting was called to take action on replies to data sheet No. 55, which had been received from about 60 member companies. This data sheet, which was sent out on May 18, requested a discussion on proposed changes in six of the rules adopted at the Denver convention, these being the only rules in the code as adopted which had been subject to criticism.

Rule No. 2 relating to the responsibility of motormen and conductors was first considered. The rule as submitted by the committee reads: "The motorman is held responsible (a) for the safe running of the car; (b) For the proper operation of the machinery of the car; (c) For running car according to schedule. The conductor is in charge of the passengers on the car and is held responsible (d) for the safety and convenience of the passengers; (e) For the collection and proper accounting of fares."

The rule as amended at the Denver convention reads: "The conductor is in charge of the car and is responsible (a) for the stopping and starting signals; (b) for the safety and convenience of passengers; (c) for the collection and proper accounting of fares. The motorman is held responsible (d) for the safe running of the car; (e) for the proper operation of the car and its machinery; (f) for running the car according to schedule."

The committee favored the rule which it submitted, but the replies from member companies showed that there was about an equal division of opinion in favor of the rule as submitted and in favor of the rule as amended. The committee recognized that this question is largely a matter of local conditions. It was decided, therefore, to submit both rules to the convention this year for final action. In preparing the report, the chairman was instructed to include in the discussion two or three typical replies from larger companies in favor of both rules.

The next rule considered was No. 21 which relates to standing on steps. The committee recommended the following wording for this rule in place of that adopted at the Denver convention: "Permit no person to stand or ride on the steps, buffers, dashers, fenders or roof. Passengers should be fully inside the car or safely landed on the platform before the signal is given to start." As there were only nine companies opposed to this wording of the rule, the committee decided to recommend it for adoption this year.

Rule No. 101 relating to the position of the conductor on the car was amended at the Denver convention by the insertion of the words "or at main entrance" after the words "remain on rear platform." Inasmuch as this code of rules is intended for universal use and there are very few companies using center entrance cars the committee was in favor of eliminating from the rule the words "or at main entrance." Only three companies replying to the data sheet were in favor of retaining this phrase in the rule and, therefore, the committee decided to recommend that it be eliminated.

Rule No. 116 regarding the amount of change which the conductor will make for passengers offering coins or bills of large denomination was amended at the Denver convention by striking out the sentence "conductors will make change for passengers to the amount of \$2 and in place of this sentence there was substituted the following, "Previous to taking charge of the car, conductors will provide themselves with \$. . . . for the purpose of making change."

There was considerable discussion among the members of

the committee on this point and the final decision was to recommend that the rule be amended by striking out the sentence stating the amount of change with which the conductors must provide themselves before taking charge of the car and substituting therefor the sentence "Conductors will make change for passengers to the amount of \$. . . ."

The committee will also recommend that the sentence "Previous to taking charge of the car conductors will provide themselves with \$. . . . for the purpose of making change" be included under Car House Rules, No. 33.

The committee submitted in the data sheet an amended rule No. 213 which reads as follows: "Power Off Line—When the power leaves the line cars must be stopped clear of all crossings or danger points. The overhead switch must then be thrown off and the light switch thrown on and the car started only when the lights burn brightly." This wording of the rule eliminates all reference to coasting and is favored on this account. As it was almost unanimously approved in the replies to the data sheet, the committee will recommend the change.

A member company suggested the addition of a new paragraph to Rule 10, as follows: "When it becomes necessary to reverse a car for a greater distance than 10 feet, motorman must take handles to the opposite end of car and operate it from that end. The conductor, under these circumstances, will change his position, that is to say, he will go to the opposite platform in order to give proper signal to motorman." As there were only four replies which were not in favor of this proposed addition to Rule 10, the committee decided to recommend to the convention that it be incorporated in the rules.

The chairman of the committee is not satisfied with the number of replies received to the data sheet sent out and intends to use every effort to obtain some expression of opinion from all member companies on the code of city rules prior to the convention. As this subject is very important all member companies who have been addressed are strongly urged to reply to the communications of the chairman of this committee immediately.

THE ADVANTAGES OF OPERATING AT HEAVY LOADS

Conservative operators of power plant machinery are constantly striving to secure good efficiencies by running each prime mover within its economical range. The best results in steam engines of recent design and in turbines are generally obtained between 75 per cent of normal load and 125 per cent overload. In spite of the best efforts of station men to cut out prime movers from service as soon as their loads fall to the less efficient ranges, it is difficult in the great majority of installations to secure full or overload economy for protracted periods if the demands upon the plant are fluctuating. In some classes of industrial service, however, the conditions of steadiness of output are decidedly favorable, and in the central station field managers are accomplishing much toward securing the benefits of heavy load operation by adding power business in the daytime hours.

A recent test by the engineering firm of D. C. & W. B. Jackson, Boston and Chicago, furnishes an unusual illustration of the benefits of a well-sustained load upon station economy. The plant was driven by a 1500-hp compound condensing engine, and in a continuous test of two weeks, the average load upon this machine was 2117 hp. The maximum load handled was 2367 hp, and the minimum, 1827 hp. The coal consumption was 1.695 lb. per hp-hour, Reynoldsville bituminous variety being used with a calorific power of 14,033 B.t.u. per pound, dry. The fuel cost was \$2.45 per ton, and the net operating expense per hp-hour, including labor, fuel, supplies and repairs, was 0.31 cts. The figures are drawn from an industrial plant running 24 hours per day with a remarkably steady load. They are not readily duplicated in plants where the demands upon the equipment vary rapidly and through wide ranges, but are interesting as indices of what may be expected in mere running cost when the full capacity and more of a good sized prime mover is required for a protracted period.

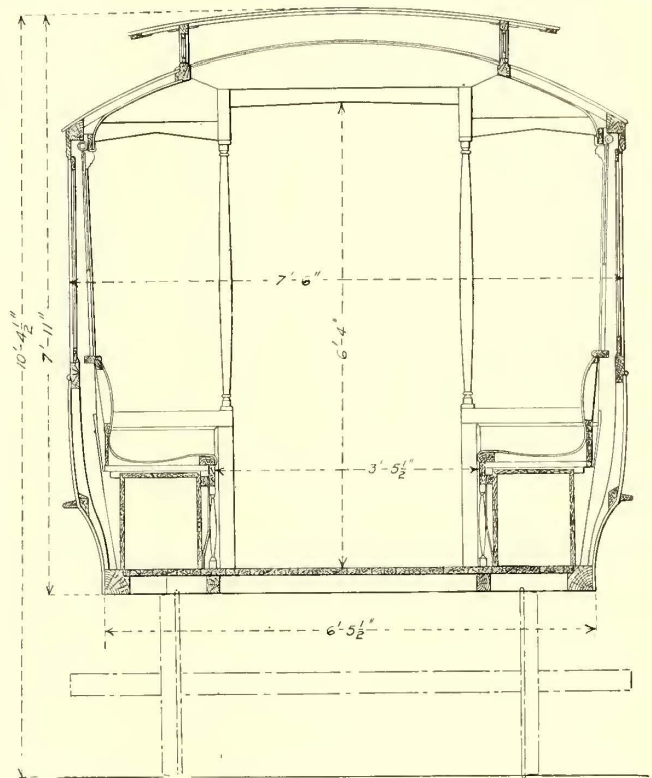
STORAGE BATTERY CARS FOR THE THIRD AVENUE RAILROAD, NEW YORK

The latter part of March, of this year, the Third Avenue Railroad, New York, N. Y., placed in service a storage battery equipment on a converted horse-car. A description and some operating results of this car were published in the *ELECTRIC RAILWAY JOURNAL*, of April 23, 1910. This pioneer car has been so successful that F. W. Whitridge, receiver of the company, has now placed an order for 30 similar equipments. Twenty-five new car bodies, are to be built and five old horse-car bodies are to be rebuilt for this purpose in the shops of the Third Avenue Railroad Company. The motor equipments and control will be furnished by the General Electric Company and the storage batteries will be supplied by the Gould Storage Battery Company. A remarkable feature of the contract with the battery company is an agreement to maintain the accumulators for five years at a fixed price per car-mile. The battery company has agreed to do all necessary cleaning, furnish all renewals of chemicals and water, make repairs, and generally maintain the efficiency of the cells in good operating condition. This contract is said to be the first of the kind ever made.

As shown in the accompanying plan and elevation, the cars will be 26 ft. 5 in. long over all and 6 ft. 5½ in. wide. The platforms will be about 4½ ft. long and designed for prepayment operation like the other cars of this company. The car body proper is 18 ft. long and will have longitudinal seats for 24 to 26 passengers. Under the seats on each side, a space 17 ft. long by 12 in. wide by 15 in. deep will be provided for the batteries. By reference to the cross-section of the car, it will be seen that room has been left in front of the battery casings under the seats for piping in case it is decided to use hot-water heaters in these cars. These pipes would be covered by perforated iron sheets. In general, the car bodies will be constructed of wood throughout and the interior finished in yellow ash. They will be mounted on single tracks, built up of riveted commercial shapes to the design shown in the drawing. Each of the truck pedestals will be furnished with three vertical springs.

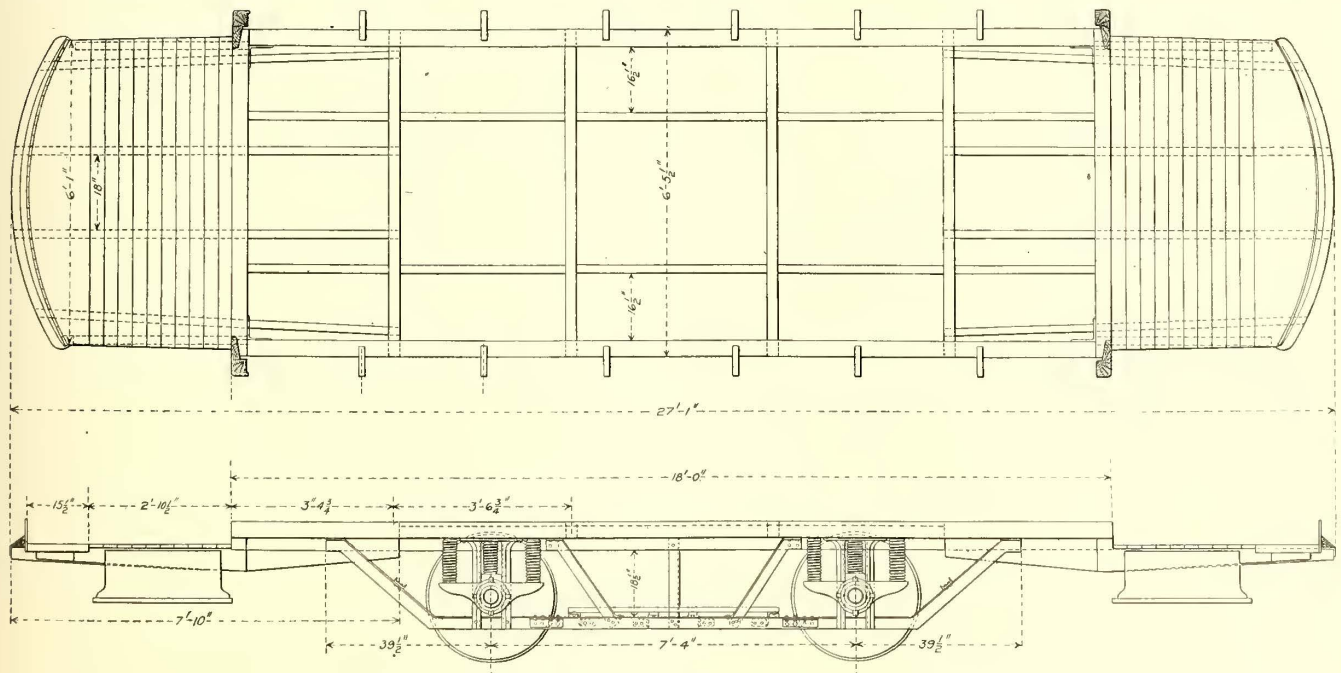
The storage battery equipment will consist of 58 cells of the

efficiency of the batteries to at least 75 per cent of their rated capacity. The motor equipment per car consists of two G. E. No. 1022 automobile type motors rated 30 amp capacity at 125 volts. The motors and the trucks will be furnished with



Cross-Section of Storage Battery Car, Showing Space Under Seats for the Accumulators

ball bearings. The type of silent chain drive has not yet been selected. With this electrical equipment it will be possible to maintain a regular schedule speed of 7 m.p.h., figuring



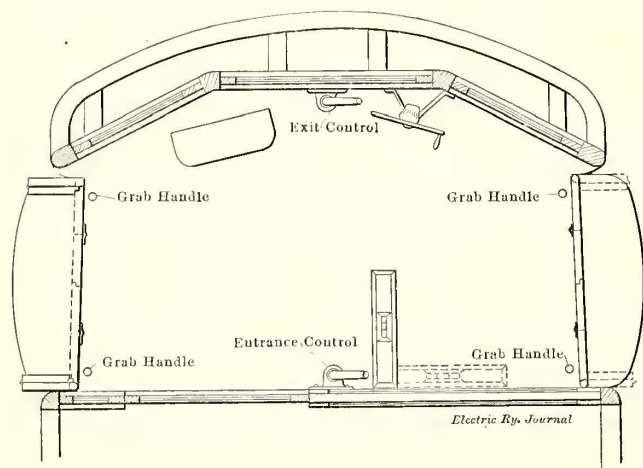
Plan of Storage Battery Car and Side Elevation of Truck

Gould 29-T-H type, having a capacity of 420 ampere-hours when discharged at a 70-amp rate and at a temperature of not less than 80 deg. Fahr. The total number of sets ordered is 36, a half dozen being reserved as spare. It is defined in the contract that "battery operating condition" means maintaining the

on eight stops per mile. The total weight of the car body, truck and equipment will be approximately 6 tons. The cars will be operated on practically level streets now served by horse-cars. It is believed that the use of self-propelled cars will greatly stimulate the traffic on these old horse routes.

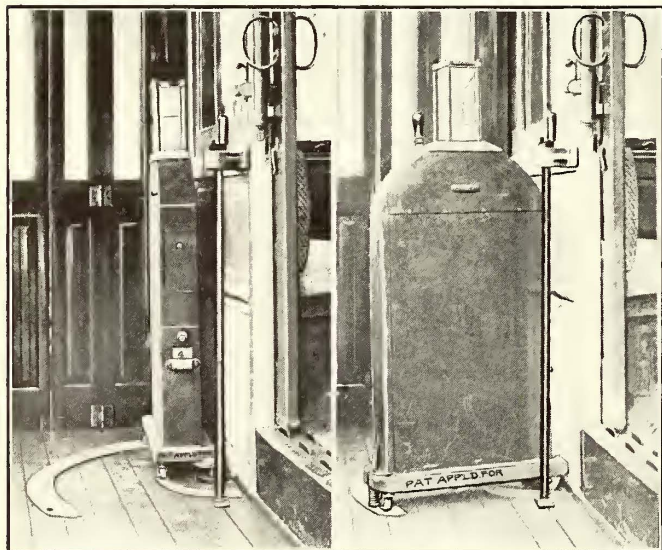
ARRANGEMENT OF SMALL CARS FOR PREPAYMENT SERVICE

The Decatur Railway & Light Company, one of the Illinois Traction System properties in Illinois, has just equipped a large, single-truck, short-platform car with folding platform doors and swinging fareboxes, which will provide for the collection of fares on the platforms and the positive closing of the entrances while cars are in motion. The car first equipped in this manner, illustrations of which are presented herewith, is



Floor Plan of Platform Showing Location of Swinging Fare Box and Folding Doors

one of 20 which immediately will be equipped similarly. Charles Woods, master mechanic of the Decatur Railway & Light Company, planned and is carrying out the work of adding the new features to these cars. This work is of particular interest because the Decatur cars are typical of the single-truck equipments operated by a large number of small city systems which heretofore have felt that the short platforms would not per-



Views of Platform Showing Fare Box in Two Positions and Folding Doors

mit of satisfactory operation according to the prepayment plan.

The two principal objects desired in the re-equipment of the Decatur car were (1) to provide for collection of fares on the platforms, and (2) to install doors which would prevent boarding and alighting accidents. These objects were attained by the use of a narrow form of four-till Brill fare box and the addition of four sets of folding doors operated and controlled by hand mechanisms, supplied by the Pay-Within Car Company through its sales agent the Electric Service Supplies Company.

The fare boxes are about 6 in. thick by 2 ft. wide and 4 ft. high provided with a glass coin-receiving and dropping section mounted on the top of a sheet-steel case, containing four safety boxes for the collections of four different conductors. Each fare box is mounted on a heavy base supported by roller castors. The base is securely fastened to the platform floor by a through bolt so fitted into a floor casting that the fare box may be revolved through 90 deg. A spring lock is provided so that the box can be securely fastened in either position. The fare box when not in use on the forward platform is swung out of the way against the end bulkhead; when in use on the rear platform the box is revolved into a position at right angles to the left-hand side of the entrance into the car body where it forms a partition behind which the conductor can stand.

Protection against boarding and alighting accidents has been provided by installing at each entrance a set of four-leaf wooden doors controlled by the pay-within hand-operated mechanism. As the cars being equipped are operated from either end provision had to be made for conveniently operating the doors from the conductor's station on the rear platform and the motorman's station on the forward platform. The operating handle used by the motorman for opening and closing the forward door, when used as an exit, is installed just at the right of the controller. On the rear platform the handle used by the conductor for operating the rear entrance and exit door is close to the left-hand side of the door leading from the platform into the car body. Only one removable handle for each platform is provided for the door-operating mechanisms, and thus with one handle in charge of each member of the car crew there is no chance for a passenger to operate the doors on the blind side of the cars and the entrance and exit doors are under complete control at all times. The new folding doors when open cover the location of the old grab-handles; therefore, a pipe stanchion has been installed at either side of each platform entrance. These stanchions take the place of the older grab-handles and are enclosed by the doors when the cars are in motion.

The design of the door-operating mechanism applied to these cars is such that friction has been greatly reduced by means of ball bearings and therefore the doors can be moved very easily. The post which carries the door-operating handle is supported by ball bearings at the top and bottom and also the 1-in. shafts on which the doors hang have similar bearings, thus providing ease of operation with the 6-in. control handles. The use of ball bearings also serves to prevent pinching of any of the moving parts when the platforms are overloaded. The door-carrying mechanism is so designed that the door sections are locked positively in the open and closed positions.

Some of the advantages of this new plan of car equipment are that it requires no alteration of the car body or platforms, thus greatly reducing the initial expense, the present full-seating capacity of the car remains and the desired objects of pre-collection of fares and complete platform enclosure are attained.

The Government of Turkey, through its consul-general, Reouf Bey, has invited bids for the construction of an extensive electric railway system in Constantinople and vicinity. Franchises of five city lines are offered to the successful bidders.

The directors of the Rätisch Railway, Switzerland, have approved a proposition to electrify a portion of that line for 15-cycle single-phase operation. The section to be electrified comprises the routes between Bevers, St. Moritz and Samaden, Pontresina and from Bevers to Schuls. Electrical operation is to begin in the summer of 1913. A contract has been made with a power plant at Brusio for a period of 10 years to 20 years covering the delivery of energy at 10,000 volts, 15 cycles. The lines to be electrified comprise a comparatively small proportion of the total system, but will serve to demonstrate the practicability of changing over additional sections.

DISCUSSION ON PARKED STREETS

The question of the construction and use of electric railway tracks in parked streets came up recently before the Supreme Court of Kings County, New York, in connection with the application of the Coney Island & Brooklyn Railroad to construct a parkway 23 ft. wide in Coney Island Avenue. This application was made to the Board of Estimate and Apportionment of the City of New York, and Spencer C. Cary, an abutting property owner, brought action to enjoin the board from permitting this change. Mr. Cary stated that he was an owner of the fee to the middle of the street, and alleged that he gave the easement for street purposes only, and that the proposed action of the city in turning the street into a park was a violation of this easement.

Among the expert witnesses at the hearing was Frank R. Ford, of Ford, Bacon & Davis, who testified that electric tracks had been installed in parked street on St. Charles Avenue in New Orleans, as well as in other cities, and that such construction was desirable from the standpoint of the public, of the company and of the passengers carried. In the first place, Mr. Ford said, the tracks in the parkway eliminated very largely the noise, which is always present to a greater or less extent in tracks in paved streets, especially if the paving is

maintain, and as the rail is cleaner, less current is required and the cars can be stopped more easily than on rails in paved streets.

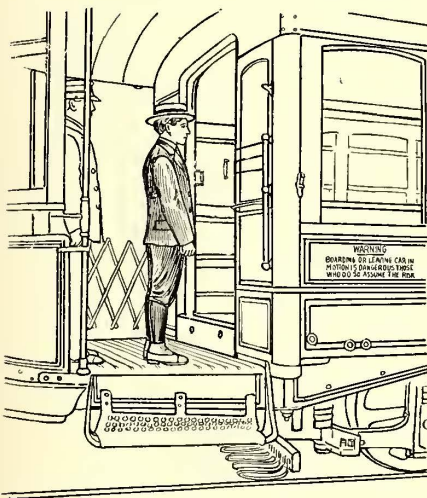
ACCIDENT INSTRUCTION FOR BALTIMORE SCHOOL CHILDREN

The school board of Baltimore, Md., has just approved the plan of the United Railway & Electric Company, of Baltimore, for the distribution in the public schools of cards showing the proper method of getting off a car and also giving a few words of caution. It is hoped that by this means the children will learn to exercise the degree of care necessary to avoid accidents. The publication issued by the company consists of two 9¼-in. x 11-in. cards bound together by a strip of linen. Three of the sides show the illustrations reproduced on this page. The fourth side contains the following statement, headed as follows:

A FEW WORDS OF CAUTION

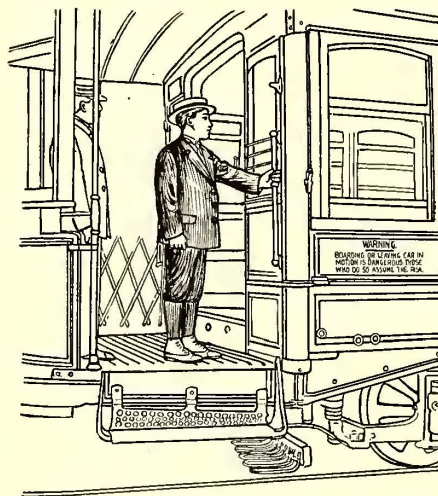
You sometimes read about a school boy or girl being run over by a street car or an automobile or a wagon, and being badly hurt or even killed. You sometimes see a reckless or thoughtless child just escape by a hair's breadth accidents of

The Right Way to Get Off



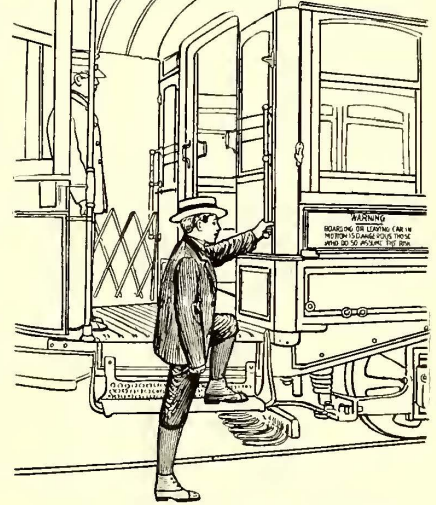
Face Forward

The Right Way to Get Off



Hold Grab-Handle with Left Hand

The Right Way to Get Off



Put Right Foot Down First

Baltimore School Cards Illustrating the Proper Way of Boarding and Leaving Cars.

laid on concrete foundation, which acts as a sounding board. In parked streets the noise is very much deadened, and the cars seem to slip along very quietly. A second advantage is the elimination of dust, and a third is the reduction of accidents both to pedestrians and vehicles. The witness said that the number of accidents caused by electric car operation with tracks in the parkway are less than one-fourth the accidents on similar tracks in paved streets.

Another advantage is the fact that the tracks can be readily repaired without tearing up paving and interfering with the use of the street as a driveway. Another advantage, and this might be considered partly in connection with the reduction of accidents, is that the parkway acts as a traffic regulator, because it divides the vehicular traffic going in opposite directions, one class passing on one side of the street and one class on the other side. Another advantage is that the parks and the parkway, if properly maintained, are very pleasing to the sight of residents on the streets, pedestrians and passengers on the cars, and the construction is better from a hygienic and sanitary standpoint than when the street is paved.

One benefit which the railway company derives from such construction is the ability to operate with somewhat higher speed than on a paved street because of the non-interference with vehicular traffic, and this, of course, is also a benefit to the riding public. The track construction is also cheaper to

this kind. That is my reason for warning you to be very careful of wagons, cars and automobiles when on the streets.

Before crossing a street always look in both directions so that you may be sure there is no danger from an approaching car or other vehicle. Never rush across the street, for in your hurry you may stumble and fall and you may be run over by a wagon or car that you did not see or that you thought was too far off to be of danger to you. Never cross behind a car or wagon unless you are sure no car or wagon coming the other way is on the other track.

Some of you use the street cars to come to school and to go home from school. Indeed, a great many of you ride on wet days. Bear these things in mind. Don't try to get on the car until it has come to a full stop. Never get off a car until it has come to a full stop. There is but one right way to get off a car, so that you will be sure not to trip yourself and fall. The right way is: *Face forward; Take Hold of Grab-Handle with Your Left Hand; Put Your Right Foot to the Ground First.*

If you are careful in these things, your parents will have no reason to worry about your safety on your way to and from school.

The Bradford (England) City Tramways, since August, 1909, have been carrying the blind people of the city free of charge, a numbered pass being issued to each blind person.

REPORT ON PITTSBURGH CONDITIONS

As stated in the *ELECTRIC RAILWAY JOURNAL* for Feb. 19, 1900, B. J. Arnold was engaged by the Mayor of Pittsburgh in February to make a report upon the transportation situation of the city of Pittsburgh. Mr. Arnold's report to the Mayor upon the proposed construction of a subway was printed in the issue of this paper for July 9. The first portion of his report upon the surface transportation situation has just been made public and is devoted to re-routing. In this report Mr. Arnold says:

"Fully as important as the development of a comprehensive plan for the rehabilitation and improvement of the physical plant of the system is the question as to how, when and where to run the cars. This is a problem of such far-reaching importance that it should not, in fact, cannot be satisfactorily settled by any one man. The president of the railways company or his officials cannot alone make the decisions without exposing themselves to criticism; and the service cannot be successfully regulated by any representative of the city without the co-operation of the railways company. The problem, therefore, is one that should be worked out by means of an official conference; and until the fundamental principles of re-routing have been determined and an equitable balance between the various interests has been established in such a way that the balance can be maintained, there can be little real progress made toward securing adequate service by means of re-routing.

PRESENT SERVICE

"The present routing is far from satisfactory. Some sections of the city are getting better service than other sections. Many routes which should be served with double-truck cars are still being operated with the small single-truck cars, and excessive overcrowding at certain times of the day exists on some lines, while, on the other hand, there are empty seats which are unnecessarily being run at other times and places. The whole system of routing is the result of more or less haphazard development rather than the outcome of a careful design. The growth has been influenced to a certain extent by special interests, which have been favored, not so much on account of influence as through insistence, until the entire routing system may be said to be out of balance.

"To improve the routing on a permanent basis, the following steps are suggested:

"1. Determine the relation that should exist between income and service by agreeing that a certain percentage of the gross earnings from operation shall be used in giving service; the balance to be retained by the company for fixed charges and profits. A discussion of what this ratio should be under Pittsburgh conditions has been prepared and will follow in a later report.

"2. Study the requirements of each section of the city and district and the physical difficulties to be contended with.

"3. Establish the principles of routing that will result in the most economical distribution of the car-miles available with a given income.

"4. Provide a system for the recording and the checking of schedules, delays and accidents. These records should be constantly used for improving the service and should be public.

"5. Make provision for extending and altering the tracks and routes to take care of constantly growing and shifting demands.

"It will be decidedly ineffective work to approach the re-routing part of the transportation problem without an equipment for securing the information needed as well as a definite understanding that a comprehensive plan is to be developed, which will be acceptable to and accepted by the majority of interests affected.

DATA REQUIRED FOR ROUTING PROBLEM

"Any rearrangement of routes, to be of permanent benefit, must be based on facts and not on assumptions. Among the records which should be available to those charged with the responsibility of working out an improved schedule are the following:

"1. Monthly records of the number of passengers, number of car-miles and earnings per car-mile on each

route operated by the company for several years past.

"2. Continuous daily records showing the earnings of each car on each route, the total number of passengers carried by each car and the actual time of each trip as compared to the scheduled time.

"3. The physical limitations of each route showing length of line, curves, width of streets, obstructions at corners, distance between tracks, overhead obstructions, grades, terminal facilities and connections with other routes.

"4. The present schedule showing the number of cars scheduled at different times of the day for summer and winter service, and the time required for each run during rush hours and non-rush hours.

"5. The location of car houses and storage tracks and a statement of the dead mileage which the present arrangement entails in running empty cars to and from the ends of their routes when placed in or taken out of service.

"6. Records of counts on passengers and seats which have been made from time to time by the city and by the company at various checking stations.

"7. Records of individual car trips which have been made and which ought to be made to ascertain when the passengers board the car, how far they travel and when they alight, and the ratio between the maximum number of passengers using the car on a given one-way trip and the maximum number on the car at any one time.

"8. A study of transfers showing the total number and the character and size of the transfer load at the transfer point.

"9. Record of franchise requirements and agreements between underlying companies which affect the number and location of the cars on the various lines.

"10. Copies of working agreements with operating men as to hours of work, tripper or swing-back runs, etc.

"11. Full list of car equipment, available, ordered and contemplated, with data as to possible changes which will allow for double-ended operation.

PRINCIPLES OF ROUTING

"Before much progress can be made in re-routing the cars, an agreement will be desirable covering the fundamental principles involved, some of which may be outlined tentatively as follows:

"1. The measure of service on any route should take into account the ratio between the total number of passengers in the car for the entire one-way trip and the maximum number on the car at any one time. This 'loading factor' is different for different routes, and if the continuous records for individual car loading is to be an indication of the relative demands for seats, this factor should be determined for each route and used intelligently.

"2. To determine whether any part of the system should be on a through line or on a transfer route, the demand for seats during the rush hour on that line should be sufficient to call for say, six large cars per hour; otherwise it will probably be found that better service may be supplied by a small car operating more frequently in a shuttle service.

"3. There may be routes or lines upon which shuttle service might be provided to the best advantage at all times except during rush hours, when 'through' cars can be provided.

"4. Transfers are not a hardship if the passengers get something in return to compensate them for the inconvenience of transfer—for instance, more frequent service in large, comfortable cross-seat cars for at least part of the ride.

"5. The small single-truck cars should be operated on the hills and on cross-town transfer lines, but should be kept out of the terminal district and off the main throughfares.

"6. In the downtown district, the long-haul routes should make use of the short loops and the short-haul routes should use the long loops, as the long-haul passengers will walk further to get a seat than the short-haul passengers.

"7. Through routing can be established gradually, by first connecting the short-haul routes on different sides of the city in such a way as to form through routes, and as these first routes prove successful, more through routes may be added.

"8. Transfers should be given in an effort to cut out useless car-miles and by concentrating traffic on through routes secure the efficiency that comes with the most efficient traffic density.

"9. If it can be agreed that the service to be supplied is measured by the income, then the one-city, one-fare principle and a very liberal transfer policy can be adopted, and there will be no question as to whether or not the patrons of the system will get back in service their share of the fare.

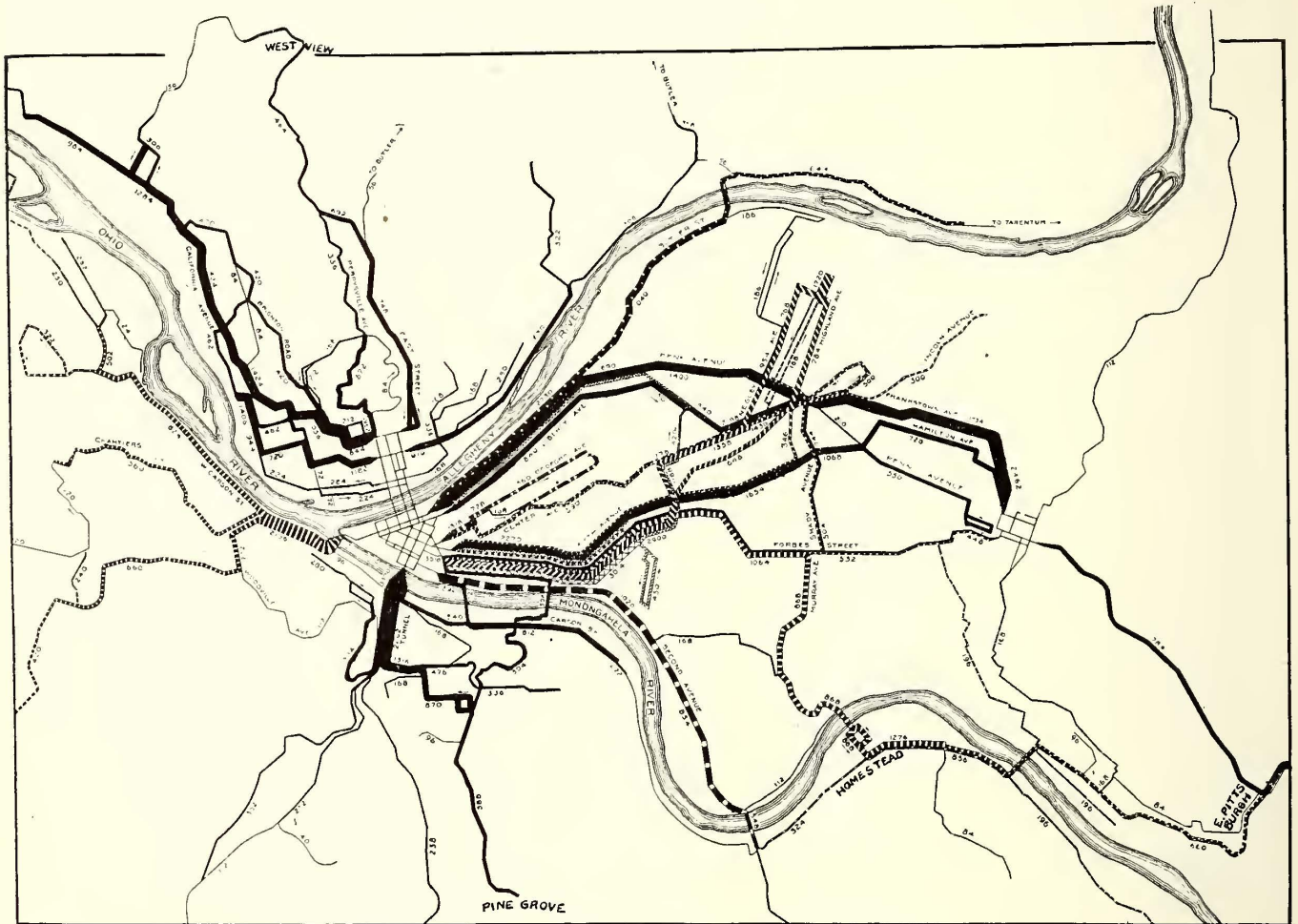
"The working out of the whole problem of routing, therefore, starts with determining definitely how much of the income is available for service, then how many car-miles this appropriation will supply, and finally what disposition of this service will best supply the demands for seats.

"This program presupposes that the records of the present routing and service will be available, that the results of a

The diagram on this page shows the rush-hour seating capacity of the surface railways of Pittsburgh taken on the same day tabulated in the larger diagram. In this diagram, the width of the lines indicates the number of seats which are scheduled to be operated one way on each route during the rush hour. The total number of seats due to leave the central business district at "The Point" and on the North Side is 23,942 during the peak hour of the evening rush. This diagram shows where these seats go and how the system is routed on the "direct" principle, with most of the cars running from the center of the city to the outlying districts with very few cross-town lines.

OTHER SECTIONS

Other sections of the report will relate to the financial and operating records of the Pittsburgh Railways Company, and



Rush-Hour Seating Capacity of Pittsburgh Street Railways

complete system of checking future operations will be made public, and that there will be a continuous and effective co-operation between the company and the city in considering and carrying out the proposed changes and eventual improvements.

DIAGRAMS

The first portion of the report is accompanied by two diagrams, reproduced herewith. The large diagram on page 151 shows the rush-hour movement on Feb. 28, 1910, a typical winter day. Each route is indicated by a different kind of a shaded line and the width of the lines varies with the number of cars operated during one rush hour. As will be seen, the system of routing in Pittsburgh consists of looping the cars on the various routes in the downtown district. There are no stub-end terminals except at the Union Depot. This loop routing results in many conflicting crossings at street intersections on account of the converging layout which was brought about by the two systems of streets developed parallel to the rivers. The maximum number of cars scheduled to leave the downtown section of Pittsburgh is 598 per hour.

will give comparisons with traction districts in other cities, future developments for rapid transit in Pittsburgh, etc.

INTERNATIONAL EXHIBITION OF ELECTRICITY AS APPLIED TO RAILWAYS

Under the auspices of the Imperial Russian Technical Society, the International Exhibition of Electricity as Applied to Railways will be held in St. Petersburg this year from the middle of August to the middle of November. It will be divided into three sections. The first section will be devoted to the applications of electricity to trunk lines. Drawings, descriptions and views of apparatus and installations will be exhibited in a section covering the following: Signaling, blocking, telegraph and telephone systems used on trunk lines, and experimental installations of these systems in working order which have not yet been in use in Russia, electric lighting and power transmission systems in railway stations

and shops, also train-lighting systems. The exhibits under the second section, which will be devoted to street and interurban railways, will include cars, car equipment and car parts, track and overhead material and data bearing on their installation and maintenance, drawings, photos and descriptions of central stations and separate parts of their equipment, also apparatus for insuring their continuous operation. Plans, drawings and views of car houses and repair shops and their different departments will also be shown under this division. The third section will be devoted entirely to hydroelectric plants. This exhibit will contain drawings and photos of projected and constructed hydroelectric plants in Russia and foreign countries, and apparatus for hydroelectric installation.

A standard gage track, 2 miles in length, will be constructed by the society for testing purposes. The expenses of the exhibition will be defrayed by the receipt of entrance fees, payment for spaces from exhibitors, sale of catalogs, etc. The exhibition will be in charge of a special organization committee of the society. The objects exhibited will be judged by an expert's jury which consists of members elected by the eighth section (railways) of the Imperial Russian Technical Society and approved by the council of the society. The president of the jury of experts will be sanctioned by the Minister of Commerce and Industry. On the report of the expert's jury the committee will award gold, silver and bronze medals, diplomas, as well as honorary prizes and honorable mentions. To exhibitors will be awarded prizes given by the Government and by societies, whose right to confer prizes is established by their duly registered rules. The number and quality of the prizes awarded by the committee will conform with the determination of the Government and institutions establishing the prizes.

PREPAYMENT CARS AT RAILROAD CROSSINGS

At the annual convention of the Iowa Street & Interurban Railway Association this year, in the discussion which followed the reading of a paper on "Prepayment Cars," questions were raised as to the best method for protecting the rear end of a pay-as-you-enter car while the conductor was flagging a crossing. Various methods were suggested and a member of the association called attention to a law in Iowa which prohibits locking the doors or otherwise hampering the free entrance and exit of passengers. Inasmuch as the practice with regard to this matter varies, the opinions of several railway operators who have communicated with this paper on this subject are presented in abstract.

T. Fitzgerald, assistant general manager Cincinnati (O.) Traction Company—"With reference to preventing the ingress and egress of passengers at railway crossings, this is something that I would not consider a sensible proposition, as in case of the trolley leaving the wire, or if for any other cause the car should become stalled on the track, the safety of a number of passengers might depend upon their ability to leave the car promptly. In the operation of our prepayment cars such points have practically given us no trouble, as the conductor can keep his eyes open and can usually get the fares of all passengers boarding at these points. Most of our crossings are in outlying districts where the traffic is light, and we have flagmen stationed at the crossings in the congested districts during the hours of heavy traffic. I do not believe that this is a matter of any serious importance to us. If the conductor is compelled to leave his car he calls the motorman to the rear end for the purpose of seeing that fares are deposited in the fare box."

Operating Official, Ft. Dodge, Des Moines & Southern Railroad, Boone, Iowa—"On prepayment cars passengers must leave and enter from one side, the other side remaining closed. Our conductors, when they go ahead to flag a crossing, keep on that side of the car and watch passengers. It seems to me that the conductor is in a position to give a quick signal to the motorman should passengers attempt to alight or a person attempt to board the car. I do not believe it would be a good plan for the conductor to put a bar or any other hindrance across the openings of the car, as even with the conductor flagging a crossing

an accident might take place and the passengers would be in greater peril because of the obstruction placed by the conductor."

Charles E. Taylor, superintendent Edmonton (Alta.) Radial Railway—"Our pay-as-you-enter cars are fitted with a sliding step controlled by the conductor from the rear platform. On leaving the car at any time that the conductor is requested to flag the car across the railway crossings or other point, the conductor operates this step by means of a handle in the vestibule; which allows it to be drawn underneath the car and has the effect of keeping passengers from boarding the car while the conductor is absent from the platform. We have found this very satisfactory, as we have yet to experience any boarding or alighting accident whatever in the operation of our pay-as-you-enter cars."

J. B. Rannie, traffic superintendent British Columbia Electric Railway, Ltd., Vancouver, B. C.—"Our company has only recently commenced using the pay-as-you-enter type of car and up to the present time we have not been using a gate or bar to lock the entrance while the conductor leaves the car for the purpose of getting change or for any other reason."

Thomas H. McCauley, superintendent Calgary (Canada) Electric Railway—"We have only an occasional case of a conductor leaving his post, not having any level crossings except over a spur rarely used and then protected by the steam railway company by signal when the conductor goes forward to signal only. Under such circumstances the conductor leaves his car after the passengers are all off and on and signals from a point where he has a view of the rear platform. We are training our passengers to pay voluntarily, by notices at the rear reading, 'Passengers are required to voluntarily place fare in box. Neglect to pay is a criminal offence subject to fine or imprisonment.' This is a municipal system and therefore passengers are stockholders to a great extent."

L. D. Mathes, manager Union Electric Company, Dubuque, Iowa—"In operating the cars of the pay-as-you-enter type we adopt no special ruling or measure for controlling movement of passengers to and from the car at steam railroad crossings. Local conditions are such that few passengers board or leave the cars at these points. The conductor goes ahead in the usual manner and reaching the center of the steam crossing he observes whether passengers are entering or alighting from his car before signaling the motorman to come ahead. In event the passengers board the car they find the inside doors open. The conductor enters the body of the car and collects the fares in the same manner as he would if the car was of the standard box type. It was suggested that the conductor could pull the double sliding doors together and throw a latch or lock, thereby restraining passengers from leaving the car at the crossing and holding those who might board it on the rear platform. We consider this an unsafe method, as in the event that the electric car was threatened with a collision in crossing the steam railroad tracks, passengers would have no chance to escape by the rear doors. This entire question impresses us as being one so entirely governable by local conditions that no universal rule of practice can be adopted. We feel that it would be a grave error to lock the car doors while the conductor is flagging the crossing."

H. T. Edgar, manager Northern Texas Traction Company, Ft. Worth, Tex.—"We only have two crossings operated over by pay-as-you-enter cars, and as passengers are not accustomed to boarding or leaving the cars at these crossings, we have had no trouble whatever on this account, which would make our condition in this respect very much easier than would be found on some other companies. When passengers board cars at crossings the conductor always waits to collect fares before he goes ahead to flag the crossing and, of course, passengers leaving the car would be protected in the same way on pay-as-you-enter cars as on the old style."

Harry Bullen, general superintendent Detroit (Mich.) United Railway—"We have but one of our lines (Woodward Avenue) fully equipped with pay-as-you-enter cars. There is no railroad crossing on this line and there is no occasion therefore

for the conductor to be absent from the car while the latter is in regular operation."

REASONS FOR ATTENDING THE ATLANTIC CITY CONVENTION

H. C. Donecker, secretary of the American Street and Interurban Railway Association, is sending out this week to all member companies and associate members a series of five mailing cards on which are printed reasons why officers of each department should attend the Atlantic City convention. The text of the cards is reprinted below:

AMERICAN ASSOCIATION

"The advantages of becoming a factor in a registration of between 3000 and 4000 individuals.

"The privilege of attending 21 meetings of five affiliated associations.

"Participation in the discussions of more than 60 committee reports and papers.

"The broader viewpoint afforded by the consideration of the practice of other companies.

"An opportunity to hit upon the solution of problems which may have been met and overcome in other localities.

"The advancement of the work of standardization generally, which can best be accomplished through co-operative effort. Standardization means economy and is of increasing importance because of advances in unit costs.

"The benefits resulting from the inspection of the exhibits of more than 200 manufacturing companies, which exhibits cover over 70,000 sq. ft. of space.

"The ideas of others may help you; why not let your own ideas help others?"

TRANSPORTATION AND TRAFFIC ASSOCIATION

"The attendance will be drawn from the leading officials of more than 350 electric railway companies.

"The subjects treated are live and up-to-date and relate to both city and interurban operation. Among them are 'City Rules,' 'Interurban Rules,' 'Training of Transportation Employees,' 'Transfers,' 'Creation of Passenger Traffic,' 'Express and Freight,' and 'Construction of Time Tables and Schedules.'

"The association was organized for mutual benefit; therefore it needs your ideas as well as those of the other fellow.

"The problems discussed cover a wide variety of conditions, some of them undoubtedly similar to your own.

"The educational advantages in the inspection of a manufacturers' exhibit covering upward of 70,000 sq. ft. of space.

"New thoughts are created, the means of overcoming difficulties developed and a broader viewpoint afforded through the consideration of the operating methods of others."

ENGINEERING ASSOCIATION

"It will broaden the point of view.

"It will stimulate the imaginative faculty, which is behind creative force.

"It brings one into touch with thinking men of the profession from widely different points, representing a wide range of conditions.

"The convention discussions offer opportunities (for interchange of ideas) that do not occur at other times during the year.

"You have good ideas and the association wants them.

"The manufacturers' exhibits as usual will be a great attraction, and an education in themselves."

ACCOUNTANTS' ASSOCIATION

"Because the discussions will reveal to you the weak points in your system.

"Because you can get the benefit of the diversified experience of those who attend.

"Because you owe it to the association to give the members the benefit of your experience.

"Because you cannot afford to miss meeting the fellows who go.

"Because you will be benefited by the trip. It will take the

place of the vacation which it is so hard to find time to take."

CLAIM AGENTS' ASSOCIATION

"Seven 'live-wire' subjects, full of interest to you, are on the program.

"The best kind of tact is contact. Get in touch with fellows who do something.

"The broadening of your acquaintance among progressive men will alone be worth more than the cost of the trip.

"If you are a man of ideas and willing to express them the convention wants you to bring your ideas and help the other fellow as well as yourself.

"Another reason why we want you is because we know that you are not one of those who are ready to be superannuated and feel that they know everything about every phase of claim work, and have reached a point where an exchange of ideas will not benefit them."

DEATH OF MR. LINCOLN

The funeral of Frederick H. Lincoln, vice-president and general manager of the Pay-Within Car Company, occurred on the afternoon of Thursday, July 14, at his late residence in Philadelphia. The interment was made at the West Laurel Hill Cemetery, Philadelphia. The American Street & Interurban Railway Engineering Association, of which Mr. Lincoln was elected president last October, was represented by a committee appointed by Acting-president Harvie and consisting of Messrs. Adams, Winsor and Gove. There was also a large attendance of Mr. Lincoln's recent associates and other friends in the Philadelphia Rapid Transit Company and other companies.

The result of the coroner's inquest on the death of Mr. Lincoln, held July 18, developed the fact that when Mr. Lincoln boarded the Washington train on which he met his death, it had just started to move from the West Philadelphia station. Mr. Lincoln had both feet firmly on the step and his left hand was on the grab rail. But as the train moved on, his grip, which he held in his right hand, caught between the side of the car and the open door of a signal tower which is at the end of the platform, and he was pulled off the step. The signal tower is approximately 20 ft. from the point at which Mr. Lincoln boarded the car and stands about 20 in. from the side of a passing car. The coroner's jury recommended that the Pennsylvania Railroad Company remove the tower to a safer distance from the track.

RESULTS OF THROUGH TICKETING IN ENGLAND

The annual report of the tramways department of the county borough of Croydon, England, gives some interesting figures on the result of the through ticketing arrangement with the London County Council Tramways, as mentioned in the ELECTRIC RAILWAY JOURNAL for May 7, on page 824. As the result of an agreement "That the amounts to be apportioned between the authorities shall be in accordance with the fare stages traversed in the area of each authority," there were sold by the joint systems no less than 757,761 through tickets between July 31, 1909, and March 31, 1910. The proportion due to the London County Council was practically £6,317 and to Croydon £3,039. The building of a short extension between Norbury and Streatham and the inauguration of the through tickets increased the travel over the joint route by about £9,983. An interesting feature in connection with this service is that it resulted in the discontinuance by Sept. 15, 1909, of a motor omnibus service which had been started July 26, 1908. Between April and September, 1909, 203 motor omnibus breakdowns delayed the Croydon car service for a total of 163 hours, 7 minutes. From April 1, 1909, to March 31, 1910, the Croydon Tramways operated 7,585,900 car-miles; carried 64,764,415 passengers and had receipts of £288,385, or 9.1 pence per car-mile. This municipal tramway system is managed by T. B. Goodyer, who kindly furnished the foregoing figures.

STEP HOLDER FOR OPEN CARS

The Brooklyn Rapid Transit System and the Third Avenue Railroad, New York, recently have equipped 919 and 232 open cars respectively with a running board step-holder invented by Joseph Edwards, a shop foreman of the first-named company. The application of this device is shown in the accompanying views as follows: the side elevation, Fig. 1; the cross-section, Fig. 2, taken through the points 2—2 of Fig. 1; the perspective view, Fig. 3; and the front view of the upper portion of the bracket, Fig. 4. In this device the keeper is always out of the way when not in use and so cannot catch the clothing of the passenger; neither does it have to be raised and held up while the step is made upright.

The sides of a car using this step-holder are provided with iron hangers, each of which has a rearwardly-projecting foot

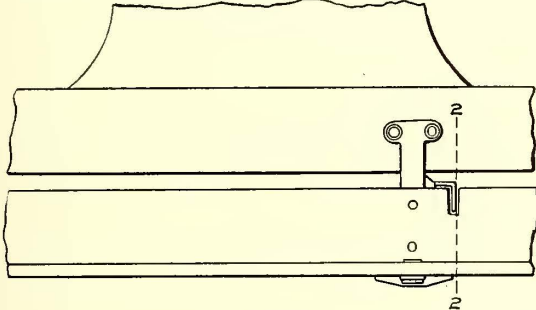
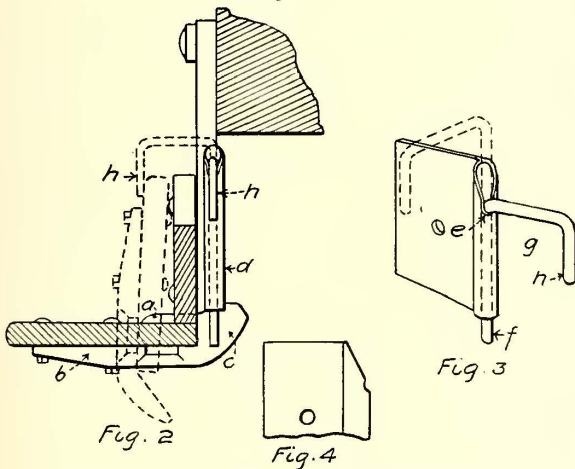


Fig. 1.



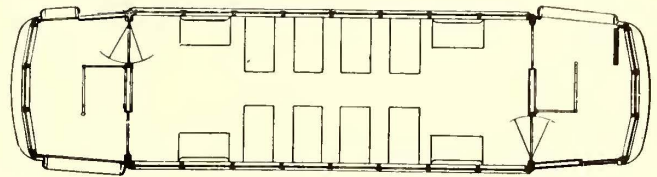
Details of Step Holder for Open Cars

with an inclined face. This foot has front ears "a" to which a hinged arm "b" is attached. The arm "b" has a toe "c" which is adapted to come against the foot when the arm is forced downward, thereby supporting the arm in a horizontal position. The running board is attached to the upper side of these arms and the riser to the outer face of the hangers. On the rear of the hangers there is attached a bracket "d" which consists of a plate with a vertical sleeve at its edge. The upper end of the sleeve has inclined side lips which lie in a plane substantially at right angles to the plane of the riser. The side of the sleeve opposite the bracket plate is formed with a notch "e." It will be observed that the step is made to receive the shank "f" of a bent keeper "g." The shank is not secured to the sleeve, but simply is received loosely therein.

The action of the keeper in holding the running board upright is shown in Fig. 2. The step is folded upward and the keeper is raised, rotated forward and dropped so that its finger "h" engages the outer or under side of the step. It is necessary only to raise the keeper to permit the step to assume the horizontal position. When the keeper is released it descends by gravity so that its horizontal portion rests upon the upper inclined edges. The keeper cannot stay in equilibrium in this position, as the effect of the inclined edges is to rotate the arm backward so that it moves in substantially the same plane as the bracket plate. The upper edge of the riser has a slot to enable the finger "h" to clear the riser when the keeper swings backward.

SINGLE-TRUCK, DOUBLE-END, PAY-AS-YOU-ENTER CAR

The Niles Car & Manufacturing Company, Cleveland, Ohio, has recently furnished some pay-as-you-enter cars to the Aurora, Elgin & Chicago Railroad under license of the Pay-as-You-Enter Car Corporation. As shown in the plan and half-tones,



Plan of Single-Truck, Double-End, Prepayment Car

these cars are of the single-truck, double-end type. The general specifications are as follows:

Length of car body over end plates.....	20 ft. 8 in.
Length over buffers.....	32 ft. 2 in.
Length of vestibules.....	5 ft. 1 1/2 in.
Width over all.....	8 ft. 5 1/4 in.
Height, under sills to top of roof.....	9 ft.
Seating capacity.....	24
Length of cross seats.....	33 in.
Width of aisle.....	21 1/2 in.
Wheel base of truck.....	7 ft. 6 in.



Single-Truck, Double-End, Prepayment Car

The bottom framing consists of side sills of 4 3/4-in. x 8-in. yellow pine; end sills of 5 1/2-in. x 8-in. oak; truck frame sills, 3 1/4 in. x 6 in. The floor is of 7/8-in. x 3 1/4-in. yellow pine laid lengthwise of car, with maple floor strips in aisle. All body



Interior of Aurora, Elgin & Chicago Car

posts are of ash or oak. The vertical outside sheathing is of 3/4-in. x 2-in. poplar. The double-sash windows have the upper sash stationary, the lower ones being arranged to drop with hinged covers over sash pockets. The end bulkheads have a panel in the center and a door at each side. The vestibules at each end of the car have double folding exit and entrance doors at the rear and a sliding exit door at the front. An iron pipe railing, as shown in the drawing, separates the entrance from the exit on the rear platform. The interior finish is in quartered oak. The seating is of rattan.

ELECTRIC RAILWAY LEGAL DECISIONS

CHARTERS, ORDINANCES AND FRANCHISES

Georgia.—Commerce—Interstate Commerce—Taxation.

Where a city grants permission to an electric railway company, exclusively engaged in the transportation of interstate freight and passengers, to use certain of its streets by running its cars over the tracks of a local street railway company, under the terms, conditions, and limitations specified in the contract between the two companies, it cannot impose a specific annual tax on the business of such railway company for running its cars in the city's streets. Such a tax is laid on the business of carrying on interstate commerce, and amounts to a regulation of it, which under the Federal Constitution belongs solely to Congress.—(City Council of Augusta et al. v. Augusta & A. Ry. Co., 61 S. E. Rep., 992.)

New York.—Carriers—Carriage of Passengers—Refusal to Give Transfers—Penalties.

Where it is shown that one became a passenger merely to see whether or not the company was giving transfers as provided, and that he had no business beyond the point of transfer, he is not aggrieved, within the meaning of the statute, by the company's refusal to issue him a transfer.—(Bull v. New York City Ry. Co., 106 N. Y. Sup., 378.)

New York.—Street Railroads—Mortgages—Construction—After-Acquired Property—Foreclosure of Mortgages—Sale of Property—Reservation of Right to Impose Liens.

A clause in a general mortgage executed by a street railroad company on all of its property, which specified as included therein all after-acquired engines, machinery, tools and equipment of every description used in operating the mortgagor's lines, covers machinery subsequently acquired and installed in buildings on real estate afterwards acquired and not subject to the mortgage, which is used in operating such lines, or in any manner in connection therewith, where it is not attached to the realty and can be removed without injury thereto.

A street railroad mortgage covering all of the property of the mortgagor specifically enumerated a number of lines of road either owned or leased by it, and provided, inter alia, that it should include all "equipment of every description now used or which may hereafter be used or employed upon said several lines or routes, whether now owned by the railroad company or hereafter to be acquired for use upon or in connection with the same." Held, that such provision included rolling stock and all other personal property subsequently acquired by the mortgagor and devoted to use generally on its system, which included, not only the lines enumerated and covered by the mortgage, but other after-acquired lines, which were, however, operated in connection therewith, and all of which, by the law of the State requiring the exchange of transfers between them were made a single unitary system.

New York.—Foreclosure of Mortgages—Sale of Property—Reservation of Right to Impose Liens.

A decree foreclosing a mortgage given by a street railroad company operating an extensive system, including leased lines, which system has been operated for several months by receivers, must necessarily reserve to the court the right to impose liens on the property after its sale, in case it shall be necessary for payment of the expenses and obligations incurred by the receivers, including personal injury claims, and balances which may be found due to lessors whose lines have been returned to them for personal property wrongfully withheld.—(Guaranty Trust Co. of New York v. Metropolitan St. Ry. Co. et al., 166 Federal Rep., 569.)

Texas.—Statutes—Implied Repeal—Licenses—Occupation Tax—All Other Taxes.

A statute may impliedly repeal an earlier one by entirely superseding it, though there is nothing in the provisions of the two which might not stand together if all were inserted in one act.

Where a statute imposes an occupation tax it will be ordinarily presumed that that is to be the only tax on such occupation, unless a different intent plainly appears.

Sayles' Ann. Civ. St. 1897, Art. 5049, Subd. 54, imposes an annual occupation tax on street railway companies, based on mileage. Acts 30th Leg. (Gen. Laws 1907, p. 479) c. 18, levies a gross earnings annual occupation tax on street railways in cities of over 100,000 population; section 22 declaring that the taxes so levied shall be in addition to "all other taxes," with the exceptions defined by the act, while section 25, prescribing the taxes from which corporations taxed under the act shall be exempt, includes occupation taxes imposed by Act 1905 (Laws 1905, p. 217, c. 111) Held, that the words "all other taxes," in section 22, included all taxes except those specified in section 25, and hence the act of 1907 did not impliedly repeal so much of article 5049, Subd. 54, as imposed occupation taxes on street railway companies, but that the taxes imposed by that act were in addition to the gross earnings tax imposed under act 1907.—(Dallas Consol. Electric St. Ry. Co. v. State et al., 120 S. W. Rep., 997.)

Texas.—Licenses—Occupation Tax—Repeal of Statute—Street Railroads—Double Taxation.

Sayles' Ann. Civ. St. 1897, Art. 5049, Subd. 54, provides for the levy of an annual occupation tax on street railway companies on a track mileage basis. Acts 30th Leg. (Gen. Laws 1907, c. 18) pp. 479-489, levies an annual occupation tax upon street car companies in cities over 10,000 population, on a basis of gross receipts, and provides that, except as herein stated, all taxes levied by this act shall be in addition to all other taxes now levied by law. The Thirtieth Legislature voted down an amendment to this act, expressly repealing article 5049, Subd. 54. Held, that the latter act did not repeal the former.

Held, also, that the exaction of both taxes was not double taxation, since it was the intention to equalize the burden of taxation, on the theory that the franchises of companies in populous cities were more valuable than in smaller ones.—(Dallas Consol. Electric St. Ry. Co. v. State et al., 118 S. W. Rep., 879.)

Washington.—Street Railroads—Franchises—Statutes—Expression in Title of Subject of Act—Municipal Corporations—Act of City Legislative Authority—Franchises—Injunction.

Laws 1903, p. 364, c. 175, as amended by Laws 1907, p. 192, c. 99, empowers the legislative authority of a city having control of any public street to grant street railway franchises and to prescribe the terms and conditions on which such railways shall be constructed, maintained and operated. Seattle Freehold Charter, Art. 4, Sec. 23, provides that, on application being made for a street railway franchise, the City Council shall by resolution determine whether such franchise shall be granted, and shall cause notice of the application to be published, etc., and offer to grant the franchise to the person or corporation who will pay the highest percentage annually of gross receipts, etc. Held, that in view of the constitutional provision reserving to cities power to frame and adopt charters, but also providing that such charter shall be subject to and controlled by general laws, and of the construction placed thereon, viz., that a general law is superior to and supersedes all freehold charter provisions inconsistent therewith, the legislative authority of the city was not required to follow the charter method in determining to whom it would grant a franchise, but could exercise its own judgment on the question, and the fact that bids were invited and received in the manner provided by the charter did not lessen the right of the legislative authority to determine the question as it saw fit, and to grant the franchise to one other than the highest bidder.

Laws 1903, p. 364, c. 175, is entitled, "An act relating to electric railroads * * * the use of streets and roads thereby," etc. This title is repeated in Laws 1907, p. 192, c. 99, amending the former act. Held, that the title is sufficiently broad to bring the provisions of the acts relating to the granting of franchises for such railways by the legislative authority of cities within the subject-matter expressed in the title.

Under Laws 1903, p. 364, c. 175, as amended by Laws 1907, p. 192, c. 99, empowering the legislative authority of a city to grant street railway franchises and to prescribe the terms and conditions on which such railways shall be con-

structed, maintained, and operated, the acts of the legislative authority in granting a franchise are purely legislative, and will not be enjoined.—(*Ewing v. City of Seattle, Seattle Electric Co., Intervener; 104 Pac. Rep., 259.*)

Wisconsin.—Exchange of Property—Title—Sufficiency—Rescission—Grounds—Failure to Perform—Cancellation of Instruments—Relief—Occupation of Land by Railroad Tracks—Removal of Cloud on Title.

A railroad company in exchange for a right of way and certain other land, agreed to convey a tract of land "by good warranty deed." The railroad company tendered a warranty deed from an agent, who held under a deed expressed to be in trust for the railroad company. The property of the company was covered by a mortgage securing the payment of a large amount of outstanding bonds. Held, that the title tendered was not one which the grantee was bound to accept, since it was doubtful whether the trust was not passive, so that title would vest at once in the company, making the land subject to mortgage; and, on the other hand, if the trust were active, the proposed conveyance might be in breach of it, and in case there was no express trust, the agent's title might be clouded by the possibility of a resulting trust in favor of the creditors of the company, under St. 1898, Sec. 2078, providing that, where title is taken in the name of one person, and the consideration paid for another, such a conveyance shall be presumed fraudulent as against the creditors of the parties paying the consideration.

Plaintiffs agreed with a railroad company to give it a right of way and certain other land in exchange for a specified tract of land and \$800. The company paid the cash consideration, and went into possession of its tract, and graded its road and laid its tracks, but the title which it offered to convey to plaintiff was not marketable, and was rejected. Held, that there was a failure of performance on the part of the company, justifying a cancellation of the contract in equity.

Held, also, under St. 1898, Sec. 1852, giving a railroad time to acquire or perfect title to land on which they have laid their tracks, and forbidding an injunction pending proceedings to assess compensation, etc., that the cancellation of the contract should not affect its operation as a consent to the occupation of the right of way, and that the company should be permitted to remain in possession pending the determination of the compensation to which plaintiff was entitled.

Where a contract between plaintiffs and a railroad company, by which plaintiffs were to transfer a right of way through their property, and all their land lying to the east of the right of way, in consideration of the transfer of a like amount of land by the railroad company, is declared rescinded by the court, if the contract, after such rescission, constitutes a cloud upon the title of plaintiff's land, the removal of such cloud is not only inherently a function of equity, but is specially enjoined by St. 1898, Sec. 1836.—(*Mahn et al. v. Chicago & M. Electric Ry. Co. et al., 121 N. W. Rep., 645.*)

LIABILITY FOR NEGLIGENCE

Alabama.—Street Railroads—Action for Injury from Car—Proof of Operation by Defendant—"Railroad"—"Railway."

Plaintiff, suing for the killing of his mule through the alleged negligent operation by defendant's agents and servants of one of its cars on its street railroad, has the burden of supporting the allegation that it operated the car. In the absence of evidence of another corporation of a similar name, the jury may infer that defendant, named in the caption of the complaint as "Mobile Light & Railroad Company, a corporation," was, as alleged, operating the street car in the city of M. that killed plaintiff's mule, from his testimony that he had a mule killed on a certain street in such city, that the railroad track runs on such street, that it was the track of the "Mobile Light & Railway," and that "they" operated cars down that street; the words "railroad" and "railway" being practically synonymous. (*Mobile Light & R. Co. v. Mackay, 48 S. Rep., 509.*)

Louisiana.—Municipal Corporations—Negligence—Leaving Horse Unhitched—Carriers—Negligence of Motorman—Evidence.

Where a horse attached to a wagon was left standing unhitched in a public street and ran away and collided with a street car, whereby plaintiff was injured the owner of the horse was liable for damage caused, under Civ. Code, sec. 2321.

A motorman held not negligent for failing to bring his car to a full stop on seeing a wagon on the side of the street without a driver, where the horse takes fright and collides with the street car, and a person, an employee, thereon is injured. (*Trenchard v. New Orleans Ry. & L. Co. et al., 48 S. Rep., 575.*)

Massachusetts. — Injuries — Negligence — Contributory Negligence.

Where a street car was running along a country road outside of the roadway, the motorman was not bound to anticipate that a traveler would needlessly drive upon the track, and need not stop until there was some danger of collision.

In an action against a street car company for injuries caused by plaintiff's vehicle being struck from behind, plaintiff could not recover if he unnecessarily, and without exercising due care, drove out of the highway near to the track, and thereby contributed to his injury.—(*Ducharme v. Holyoke St. Ry. Co., 89 N. E. Rep., 561.*)

Massachusetts.—Carriers—Street Railways—Injury to Person Boarding Car—Instructions—Negligence.

In an action for injuries while boarding a street car, a charge that where a person goes toward a street car after it has stopped at a regular stopping place and takes hold of it in the process of entering it, he is a passenger, is deficient, in not stating that if the person undertook to take hold of the car after it had started, and without having been seen either by the motorman or conductor, he was not a passenger.

If a street car was just starting and barely moving, the attempt of a woman incumbered with bundles to board it would not constitute negligence.—(*Payne v. Springfield St. Ry. Co., 89 N. E. Rep., 536.*)

Michigan.—Master and Servant—Injuries to Third Persons—Negligence—Willfulness — Damages — Personal Injuries—Future Consequences—Impairment of Nervous System.

Where, in an action for injuries to plaintiff by his horse becoming frightened by the blowing of a whistle attached to an electric car, there was evidence to prove a negligent use of the whistle as opposed to a malicious and wanton use of it, and the court charged in accordance with defendant's contention that plaintiff could not recover if the whistle was blown intentionally, willfully, and maliciously by the motorman to frighten the plaintiff's horses, if the motorman's act was not within the scope of his employment, it would be assumed that a verdict for plaintiff rested on a finding that the blowing of the whistle was negligent, and not malicious and wanton.

Apprehended future consequences of an injury cannot be considered in determining plaintiff's damages, unless there is such a degree of probability that such consequences will follow as to amount to a reasonable certainty.

Where one of the consequences of injury is a permanent impairment of the nervous system, it should be considered in estimating damages.—(*Brininstool v. Michigan United Rys. Co., 121 N. W. Rep., 728.*)

Missouri.—Negligence—Issues—Contributory Negligence—Street Railroads—Collision—Negligence of Motorman.

Where plaintiff's want of care appeared in making out his own case, contributory negligence was in issue, though it was not set up in defendant's answer.

In an action for damage to plaintiff's team by colliding with defendant's car, it appeared that plaintiff's driver was driving between defendant's tracks, and that the car and wagon were in plain view of each other for several blocks; that plaintiff's driver actually saw the car coming for a block or two, and attempted to get off the track within sufficient time to have done so, but for the unexpected sliding of the wheel along the track. Held, that the motorman's conduct should only be judged by the standard of an ordinarily prudent man, and he was not required to foresee that the wheel would slide on the rail, and he was therefore not guilty of negligence. (*Hebeler vs. Metropolitan St. Ry. Co., 112 S. W. Rep., 34.*)

New Jersey.—Street Railroads—Accident to Pedestrian—Negligence.

A pedestrian, struck by a street car which left the track, is not guilty of contributory negligence because he was standing in the roadway, when it appears that he was sufficiently distant from the track for the car to have passed him in safety if it had remained upon the track.—(Najarian v. Jersey City, H. & P. St. R. Co., 73 Atl. Rep., 527.)

New Jersey.—Street Railroads—Injuries to Person on Track—Evidence.

Under the circumstances of this case, where it appeared by a preponderance of testimony that plaintiff had been seen intoxicated shortly before the accident, and the negligence attributed to the defendant rested substantially upon the plaintiff's uncorroborated story, which appears inconsistent with the situation in which he was found after the accident, and which, even if true, discloses negligence on his part, a verdict for the plaintiff is set aside.—(Anderson v. Public Service Corporation of New Jersey, 73 Atl. Rep., 840.)

New York.—Negligence—Personal Injuries—Proximate Cause.

Defendant is liable for any personal injury negligently inflicted, though the injury would have been less disastrous if plaintiff had been in perfect health at the time of the accident.—(Miehlke v. Nassau Electric R. Co. et al., 114 N. Y. Sup., 90.)

New York.—Master and Servant—Contributory Negligence—Sudden Peril.

The fact that an employee working in a sitting position between the tracks on a trestle, stood up on seeing a train 15 feet away, and was struck by the step of the car, does not render him guilty of contributory negligence, though he might have escaped injury if he had remained passive where he was.—(Gorman v. Brooklyn Heights R. Co., 115 N. Y. Sup., 662.)

New York.—Street Railroads—Injury to Person Crossing Track—Contributory Negligence—Infants—Care Required.

Plaintiff, an infant, before attempting to cross the street, which was 32.7 feet from curb to curb, saw defendant street railroad's car some 215 feet away, and ran to cross the track, but miscalculated the speed of the car, and was struck and injured. Held, that it could not be said that, because he made the mistake of assuming that he could cross the street in safety, he was guilty of contributory negligence as a matter of law.

The law does not require of children the same degree of prudence that is required of adults.—(Quinlan v. Richmond Light & R. Co., 117 N. Y. Sup., 641.)

New York.—Master and Servant—Personal Injuries—Questions for Jury.

Where a motorman claimed that because of lack of proper hangers between his vestibule and the car proper the light prevented him from seeing, and he ran the car into a wagon and was injured, the question of whether he was negligent in not leaving the window ahead of him open wider than 2½ inches, so he could better look ahead, was for the jury.—(Forton v. Crosstown St. Ry. Co., 116 N. Y. Sup., 746.)

New York.—Carriers—Failure to Stop on Signal—Contributory Negligence—Duty to Stop at Customary Place on Signal—Absence of Headlight.

A street car track was built within 5½ ft. of a wire fence on one side of the street, so that when a car passed there was a clear space between the car and fence of about 4 ft. There was no sidewalk there, but pedestrians were accustomed to walk there, and the street cars were accustomed to stop anywhere along there to discharge passengers, or on signal to receive them. Rough ice and snow had formed on the clear space, making an incline towards the tracks. Decedent walked along on such space, and attempted to signal a car, which, however, ran by without slackening speed, and inflicted injuries resulting in his death. Held, that he was not negligent as matter of law in being where he was when injured.

If street railroad cars were in the habit of stopping on signal at a certain place, the failure to do so, resulting in injury to the person signaling, would constitute negligence.

Running a street car after dark without a headlight would be negligent.—(Trieber v. New York & Q. C. Ry. Co., 119 N. Y. Sup., 439.)

New York.—Master and Servant—Appliances and Places for Work—Street Cars—"Bumpers"—Master's Liability for Injuries to Servant—Tools, Machinery—Buffers.

The extensions of the floors of street cars at either end which constitute the platforms are not "bumpers" in the sense in which that term is applied to freight and passenger cars operated in trains on steam railroad lines.

A street surface railroad company operating its cars not in trains, but singly, does not owe its employees the duty of using only cars with platforms at either end so constructed as to be at the same height above the track, or with buffers to guard motormen against injury from collisions. (Durkee vs. Hudson Valley Ry. Co., 86 N. E. Rep., 537.)

New York.—Street Railroads—Rights in Street—Injuries—Actions—Jury Question—Contributory Negligence.

While a street car company has a paramount right to use its tracks in a street, and the driver of a vehicle must leave the track promptly on hearing the signal, he can drive on the street car tracks and assume that a car will not collide with him from the rear without giving him warning of its approach and an opportunity to leave the track, and that the car will not approach in excess of the speed limit.

In an action against a street railroad company to recover damages to plaintiff's horse and wagon, etc., caused by defendant's negligence in striking the rear end of the wagon, whether plaintiff was guilty of contributory negligence held for the jury.—(Normand v. Hudson Valley Ry. Co., 117 N. Y. Sup., 1076.)

New York.—Highways—Repair—Personal Injuries—Obstructing Passage of Trolley Car—Contributory Negligence—Matter of Law—Injury Caused by Negligence of Third Person and Fellow Employee.

Plaintiff, an inspector, was knocked from the running board of a car by a projecting part of a concrete mixer, used by defendant in repairing the highway. Held that, admitting he could have seen it when boarding the car and that it was plainly visible from that time until he was thrown off, he was not guilty of negligence as a matter of law, because he was not legally obliged to look for such obstructions, and his duties required his attention elsewhere, and he had a right to rely on other users of the highway not dangerously obstructing the passage of cars.

Where plaintiff, an inspector in the employ of a trolley road, was knocked from a car by a projecting part of a concrete mixer used by defendant in repairing the highway, if the accident was caused by the negligence of both defendant and the motorman, a fellow employee of plaintiff, defendant would still be liable.—(Swanton v. Hastings Pavement Co., 114 N. Y. Sup., 443.)

Texas.—Carriers—Injury to Passenger—Contributory Negligence.

Where a passenger on a street car, instead of waiting for the car to stop at the usual place before alighting, got off while the car was in motion, and immediately passed around its rear end and practically upon the adjoining track, upon which he knew cars passed at frequent intervals coming from the opposite direction, and neither stopped, looked nor listened to discover if a car was approaching, he was negligent as matter of law, and could not recover for an injury from being struck by a car on that track.—(Austin Electric Ry. Co. v. Lane, 120 S. W. Rep., 1011.)

Virginia.—Street Railroads—Injuries to Person on Track—Contributory Negligence.

Where plaintiff had lived near the point at which he was injured by a street car for a number of years, and the point at which his friends were to take the car was not a regular stopping place, and he knew that the car would not stop except on signal, and they knew that it might be momentarily expected, and he saw it a short distance from the crossing, and, that he might give the signal, stooped to strike a match on the rail, and in so doing projected his head over the track so that it was struck, he was guilty of contributory negligence.—(Norfolk & P. Traction Co. v. White, 63 S. C. Rep., 418.)

News of Electric Railways

The Detroit Situation

The City Council of Detroit has approved the action of the committee on franchises of that body in reporting in favor of employing an engineer to make a new appraisal of the property of the Detroit United Railway at the expense of the company, and it is likely that Frederick W. Walker, who succeeded Fred T. Barcroft as engineer of the committee of fifty, will be retained to make the appraisal, if the company will agree to defray the expenses which a new appraisal will involve. Mr. Walker will be authorized to employ three other engineers of standing as assistants. He is of the opinion that with proper co-operation the appraisal can be accomplished within a very short time. The differences between the values fixed by him and those fixed by the company could then be arbitrated as was proposed originally.

There has naturally been a great deal of speculation regarding the tenor of the special message regarding transit affairs in Detroit which it was announced recently that Mayor Breitmeyer would address to the Council. It is reported that the Mayor will insist as the principal provision of a new grant upon the payment to the city by the company of a rental for the privilege of operating after a fair return has been made to the stockholders based on the investment of the company as determined by a board of arbitration which will consider the disputed points in the appraisals of the company and the city. It is said to be the Mayor's idea to have this rental set aside as a special fund with the end in mind of eventually taking over the property of the company. The Mayor is also said to favor the appointment of a municipal street railway commission with power to deal with all questions which come up between the company and the city. Among other things he is said to favor the following: Universal transfers during rush hours. The extension of rush hours both night and morning in accordance with the provisions of the Webster settlement ordinance. Fares during other times of the day and night to remain as now. The franchise of the lines on which a 3-cent fare is now in force to remain unchanged until after its expiration in 1924.

The franchise committee of the Council which met with F. W. Brooks, general manager of the Detroit United Railway, has submitted its report to the Council, and without objection a resolution offered by Chairman Harpfer asking the company if it will agree to pay the expenses incurred in employing an engineer to reappraise the property of the company was passed. Only Alderman Gutman refused to sign the report. Following a statement of the fact that the Mayor has recommended the employment of Mr. Barcroft to explain the details of his appraisal, the committee report says:

"This committee agrees that it is imperative that a valuation of the company's property, which cannot be impugned, be reached by the city, whether it is to be used in an ordinance proposed for settlement of the question or in the purchase of the property of the company, but we regret to say that we disagree with him (the Mayor) upon the policy of retaining Frederick T. Barcroft, under whose direction the appraisal of the Detroit United Railway property was taken. Your committee is firmly convinced that the Council should appoint an engineer to make an appraisal of the property of the Detroit United Railway at the expense of said company, and we therefore recommend that the city clerk be directed to submit a copy of this report to the president of the Detroit United Railway with the request that he inform the Common Council in writing, at its next session, whether or not said company would, at its expense, pay the cost of having an appraisal of its property made by a competent engineer appointed by the Common Council."

In answer to the mandamus proceedings of the Detroit United Railway to compel the city to spend \$1,000,000 in repairing pavements along the lines of the company which are operated at a 3-cent fare, Corporation Counsel Hally,

of Detroit, has declared that the company has been so lax in performing requirements of the contract that the city is relieved of its contractual obligations in the case. By mutual consent the Circuit Court has postponed the case until September.

The application of the Michigan United Railway for permission to enter Detroit has not yet been acted upon, but it has been decided that the Michigan United Railway could come into Detroit over the 3-cent lines of the Detroit United Railway and that an interchange of transfers on these lines could be made compulsory.

Consideration of the resolution introduced into the Council by Alderman Glinnan to submit municipal ownership to a vote on Aug. 15, 1910, has been postponed. The measure, besides instructing the city clerk and election commissioners to make all necessary arrangements for holding the election, instructs Controller Heineman to draw warrants on the general fund for the expense of the election, not to exceed \$10,000.

Progress of Toledo Inquiry

At the request of Brand Whitlock, Mayor of Toledo, Albion E. Lang, president of the Toledo Railways & Light Company, has furnished the City Council with a copy of the inventory prepared for the committee of bondholders. Mr. Lang transmitted a reply to the last communication of Mayor Whitlock on July 6, 1910, and afterward conferred with J. B. Merrill, chairman of the committee of the council on railroads. Subsequently Mr. Lang sent a communication to the newspapers in which he stated that he desires only a guarantee of a sufficient return on the investment in the company to attract capital to rehabilitate the property. He suggests that an engineer be appointed by the city to cooperate with the engineer of the company in preparing data for the city. Mr. Lang's letter to Mayor Whitlock follows:

"In your letter to Messrs. Nau, Tanner and Rusk of June 10, as to a board of engineers, it was not our intention to make it a condition precedent to an investigation by such a board of engineers, that the city or the company should be bound by their findings, as we quite agree with you as to the probable inability of the municipal authorities to delegate their authority in that respect.

"Our thought was that such an investigation would promptly inform the municipal authorities, among other things, as to the actual value of the properties of the company, the character of service best suited to the requirements of the people of Toledo, the actual cost of operation and the requirements for future extensions, betterments and improvements, which information would seem to be necessary for use in any negotiations looking to a settlement of the franchise question and avoiding, if possible, the complications, delays and expenses which have attended the adjustment of franchise questions in the cities of Chicago, Detroit, Cleveland and Kansas City.

"We were pleased that the accountants selected for an examination of our books and accounts so promptly entered upon their examination, and as we have endeavored in every way to assist and facilitate them, we trust that their early report will fully inform the municipal authorities with regard to facts possible to be obtained through accountants.

"Appreciating that accountants, as such, cannot be expected, without the assistance of engineers, to analyze the accounts as to actual cost of operation, as well as the valuation of property and other matters dealing with engineering problems, we have supposed that at the proper time the city authorities would select engineers to act independently or in conjunction with the accountants in determining such engineering problems, and we think that the appointment of such an engineer at the present time, to act in conjunction with the company's engineer, will result in material saving of expense to both the city and the company, and will facilitate the promptness with which such information will be available to the city authorities.

"In accordance with your request, however, we are instructing our engineer to complete promptly such inventories and schedules as the company now has, and when completed, they will be furnished to the city authorities."

On July 14, 1910, Mayor Whitlock met with the council committee on railroads. The accountants have completed their work so far as the books of the company show the business which is being done and they are waiting for the additional information which Mr. Lang has promised to supply. In a letter to Mr. Lang, dated July 13, the Mayor has suggested that such schedules as may be completed should be furnished Nau, Tanner & Rusk, and that the remainder be turned over to them as soon as they are finished, in order that Nau, Tanner & Rusk may proceed with the preparation of their report without loss of time.

Cleveland Traction Situation

The statement of the Cleveland Railway for June, 1910, under the Tayler plan, shows a deficit of \$8,221.26, but on the basis of actual expenditure the deficit is \$48,927.85. This makes the actual deficit for the four months of operation \$78,828.83. J. J. Stanley, president of the company, stated to the directors, in session on July 16, 1910, that the deficit for June was due principally to expenditures for the maintenance account, as the increased allowance of six cents per car-mile for June, July, August and September had proved inadequate to meet requirements. While the allowance was \$133,713.06, the expenditures were considerably in excess of this amount, due to the conversion of old cars to cars of the prepayment type and minor improvements in the power houses. The surplus in the operating account cared for the increase in the wages of the platform men and the deficit was not due to this. Only \$2,633.75 remains in this account and it will not cover the increase for the present month. During June the car miles operated totaled 2,228,551, as compared with 2,034,393 for the same period last year. The total number of passengers carried for the month was 14,495,333, as against 12,443,486, an increase of 2,051,847. The increase in car miles was less than 10 per cent, while the increase in the number of passengers carried was more than 16 per cent. The report for June, figured under the Tayler ordinance, follows:

Gross receipts from operation.....	\$515,503.66
Operating expenses:	
Maintenance	\$133,713.06
Operation	256,283.36
	389,996.42
Net from operation.....	\$125,507.24
Miscellaneous income.....	4,999.44
Gross income less operating expenses.....	\$130,506.68
Taxes	26,816.93
Income less operating expenses and taxes.....	\$103,689.75
Interest	111,911.01
Deficit	\$8,221.26

The directors have authorized the company to make a loan of \$200,000 to meet immediate requirements.

Transit Affairs in New York

Theodore P. Shonts, president of the Interborough Rapid Transit, New York, N. Y., sent another letter to Mayor Gaynor on July 15, 1910, on the proposed extensions of the present subway, in which he shows a willingness to compromise on the objections the Mayor raised to the original plan. The most important of the points in dispute were the using of Lexington Avenue for the northeast leg of the so-called "Letter H" route, thereby completely blocking the Broadway-Lexington Avenue subway, and the provision that if the earnings of the company should not suffice to pay the interest on the city's corporate stock issued for construction and an additional 1 per cent, to constitute a sinking fund, the city should take up such deficiency and not be reimbursed by subsequent earnings when they should grow to be sufficient. Mr. Shonts abandons this latter proposition, and says that he will incorporate a clause in his final communication to the Public Service Commission providing that "the making good of any temporary deficit by the city will be limited to the payment of any interest on its own bonds not met by the net earnings of the road and all interest so paid, together with a sinking fund of 1 per

cent per annum, from the commencement of operation of the extensions, to be a preferred and cumulative charge against the net earnings of the road, to be paid in full before any division of the profits is made." Mr. Shonts points out several reasons why he believes Lexington Avenue is the best route for the northeasterly extension, but declares that he is willing to consider any other suggestion that the city or the commission may make.

New Oregon Road Opened—The Portland, Eugene & Eastern Railway, Eugene, Ore., has been placed in partial operation.

Railway to Furnish Power Along Its Lines—The Chicago, Lake Shore & South Bend Railway, Michigan City, Ind., has announced that it will furnish electricity for light, heat and power to consumers along its line.

Car License Suit in Milwaukee—The hearings in the suit brought by Emil Seidel, Mayor of Milwaukee, against the Milwaukee Electric Railway & Light Company, Milwaukee, Wis., to recover \$77,000 in car license fees which he claims is due the city were postponed on July 11, 1910, to Aug. 1, 1910, after both sides had agreed on a stipulation of facts.

Spokane Transportation Club—It has been decided to postpone from July 20, 1910, to August 11, 1910, the annual outing of the Spokane Transportation Club, Spokane, Wash., on the St. Joe River. At the meeting of the club on June 17, 1910, it was voted to accept the invitation extended by Waldo G. Payne, second vice-president and traffic manager of the Spokane & Inland Empire Railroad, and J. C. White, of the Red Collar Steam Boat Line, to hold the annual outing of the club on the St. Joe River, taking the cars of the Spokane & Inland Empire Railroad as far as Cœur d'Alene. The party will then journey by boat up Cœur d'Alene Lake to the mouth of the St. Joe River.

Steam Road in Southwestern New York Seeks Permission to Electrify Line—The Jamestown, Chautauqua & Lake Erie Railroad, Buffalo, N. Y., which is controlled by the same interests that control the Buffalo & Lake Erie Traction Company, has applied to the Public Service Commission of the Second District of New York for permission to electrify its line, which extends between Jamestown and Westfield, N. Y., a distance of 42 miles. This railroad has been operated by steam and undoubtedly the freight traffic will be continue to be handled in this manner. The Jamestown, Chautauqua & Lake Erie Railroad connects with the lines of the Buffalo & Lake Erie Traction Company at Westfield.

Advertising a New Franchise in Norfolk—The Norfolk & Portsmouth Traction Company, Norfolk, Va., has published in pamphlet form for distribution in Norfolk the series of bulletins about the new franchise introduced in the Council of Norfolk on May 3, 1910, which it has just finished running as advertisements in the newspapers of Norfolk. These bulletins numbered 17 in all, and by publishing five each week in the newspapers they were brought to the attention of the readers for more than three weeks just before the meetings were begun before the committee of the council having the new ordinance in charge. Maps have been used to considerable advantage in the pamphlet to illustrate changes in routes, etc., which the company desires. The company concluded its first advertisement in part as follows: "The draft submitted is a mere block or pattern; a suggestion from which a new copartnership agreement may perhaps be drawn. In some cities public utility companies would have prepared a completed ordinance on lines in every way agreeable to the management of the company, which ordinance would have been submitted to a few important and influential parties, whose consent obtained, it would have then been introduced to councils and passed. We have adopted the 'new' method; have gone directly to the people through their chosen representatives. Nothing has been prearranged. No one has been pledged. Our object in seeking to have the ordinance introduced as it was, was that full discussion might take place. There is nothing hidden. We are out in the open. As the argument of the company is unfolded to you, facts, figures and statistics furnished you, it is our hope that you will come to look upon us as a good partner, a good citizen, and as such entitled to your support."

Financial and Corporate

New York Stock and Money Market.

JULY 19, 1910.

In the stock market to-day there was no pressure to sell and consequently there was very little trading. Without the selling eagerness prices held firm, and the day recorded slight recoveries from the low points of yesterday. The buying element is almost entirely absent, and unless the sellers become anxious and force liquidation trading almost stops. Traction stocks continue to hold their full share of what little trading exists. Interborough is still traded in liberally at about former prices, while Third Avenue is considerably more active at advanced figures.

Money is very easy. Quotations to-day were: Call, 1½ to 2½ per cent; 90 days, 4½ per cent.

Other Markets

Tractions have been dull in the Philadelphia market during the past week. Very few shares of Rapid Transit have been offered and trading in Union Traction, the most active of the lot, has been spasmodic. Prices are practically unchanged.

In Boston, Massachusetts Electric and Boston Elevated are still traded in to a limited degree, but there has been no change in price. Other tractions are out of the market.

There has been little trading in tractions in Chicago. The market is dead, waiting for more definite information concerning the various mergers and deals that are now pending. A feeling of uncertainty checks all trading.

In the Baltimore market during the week there has continued to be quite liberal trading in the certificates of the United Railways Company. Up to the present time, however, nothing has developed to indicate that an attempt was being made to purchase control.

Quotations of various traction securities as compared with last week follow:

	July 12.	July 19.
American Railways Company.....	a42½	a42½
Aurora, Elgin & Chicago Railroad (common).....	52	*52
Aurora, Elgin & Chicago Railroad (preferred).....	86	*86
Boston Elevated Railway.....	a126	126
Boston & Suburban Electric Companies.....	a15	a15
Boston & Suburban Electric Companies (preferred)....	a74	a74
Boston & Worcester Electric Companies (common).....	a10½	*10½
Boston & Worcester Electric Companies (preferred)..	37	37
Brooklyn Rapid Transit Company.....	76¾	77¾
Brooklyn Rap. Transit Company, 1st pref. conv. 4s..	82	82½
Capital Traction Company, Washington.....	a130	a130
Chicago City Railway.....	a195	a195
Chicago & Oak Park Elevated Railroad (common).....	*3¼	*3¼
Chicago & Oak Park Elevated Railroad (preferred)..	*7¼	*7¼
Chicago Railways, pteptg., ctf. 1.....	a75	a80
Chicago Railways pteptg., ctf. 2.....	a17	a17
Chicago Railways, pteptg., 3.....	a11	a11
Chicago Railways, pteptg., ctf. 4s.....	a6½	a6½
Cleveland Railways.....	*91½	*91½
Consolidated Traction of New Jersey.....	a74	a74
Consolidated Traction of N. J. 5 per cent bonds.....	a103	a103
Detroit United Railway.....	45	45
General Electric Company.....	141	144
Georgia Railway & Electric Company (common).....	a107½	a107½
Georgia Railway & Electric Company (preferred)....	a87	a87
Interborough-Metropolitan Company (common).....	17¾	17¾
Interborough-Metropolitan Company (preferred)....	50½	50½
Interborough-Metropolitan Company (4½s).....	79¾	80
Kansas City Railway & Light Company (common)....	a25½	a25
Kansas City Railway & Light Company (preferred)..	a75	a79½
Manhattan Railway.....	128	128
Massachusetts Electric Companies (common).....	14¾	*15
Massachusetts Electric Companies (preferred).....	a78	a80
Metropolitan West Side, Chicago (common).....	*23½	*23½
Metropolitan West Side, Chicago (preferred).....	*58½	*58½
Metropolitan Street Railway.....	*15	*15
Milwaukee Electric Railway & Light (preferred)....	*110	*110
North American Company.....	66¾	68½
Northwestern Elevated Railroad (common).....	*25	18
Northwestern Elevated Railroad (preferred).....	a65	a65
Philadelphia Company, Pittsburg (common).....	a42½	a44
Philadelphia Company, Pittsburg (preferred).....	a43	a43½
Philadelphia Rapid Transit Company.....	a18¾	a19
Philadelphia Traction Company.....	a84½	*84½
Public Service Corporation, 5 per cent col. notes.....	a96	a96
Public Service Corporation, ctf. s.....	a99	a99
Seattle Electric Company (common).....	a109	a109¾
Seattle Electric Company (preferred).....	a99½	a100
South Side Elevated Railroad (Chicago).....	*72¾	*72¾
Third Avenue Railroad, New York.....	94	103¾
Toledo Railways & Light Company.....	7¾	*7¾
Twin City Rapid Transit, Minneapolis (common)....	107	107½
Union Traction Company, Philadelphia.....	a44¾	a45
United Rys. & Electric Company, Baltimore.....	a14½	a14½
United Rys. Inv. Co. (common).....	*30	*30
United Rys. Inv. Co. (preferred).....	*50	*60¾
Washington Ry. & Electric Company (common)....	a33½	a32½
Washington Ry. & Electric Company (preferred)....	a88	a88
West End Street Railway, Boston (common).....	a88	a87
West End Street Railway, Boston (preferred).....	a100	a100½
Westinghouse Elec. & Mfg. Company.....	59	*59
Westinghouse Elec. & Mfg. Company (1st pref.).....	*125	*125

a Asked. * Last Sale.

Brief Submitted in Third Avenue Reorganization

Counsel for the reorganization committee of the bondholders of the Third Avenue Railroad, New York, N. Y., has filed with the Public Service Commission of the First District of New York a brief setting forth the proposed changes in the capitalization of the company, in which answer is made to the analogy used by Mr. Maltbie, of the commission, in the closing hearing before the commission on July 11, 1910, at which it was suggested that the capitalization of the company should be scaled down. Mr. Maltbie used a suppositious case of a company with a capitalization of \$100,000,000. He then assumed that the property depreciated and was worth \$60,000,000 when the line was reorganized. The question then arose whether it would not be better to reduce the capitalization to the present value of the property, or \$60,000,000. William D. Guthrie for the bondholders says:

"There were, of course, two aspects to this suggestion: The one from the point of view of bondholders, the other from that of stockholders. First, it was asked why it would not be just to cut the bondholders down 40 per cent to present value. The answer is that this would wipe out 40 per cent of their actual investment and to that extent savor of confiscation, for, of course, once reduced, the bondholders could not collect more than the reduced face of their obligations.

"Would such a compulsory reduction of an honest and legal debt be permissible? Or, stated conversely, could the commission say to the corporation that a reissue of bonded debt at face would not be a 'lawful refunding of its obligations?'

"Then, secondly, it was asked whether there was any practical difference to stockholders if the par value of their stock were reduced to actual value of the equity. Of course, shares of capital stock only represent undivided parts of the whole equity after deducting debts and obligations. In that sense it could make no difference what the par value was—whether one dollar, ten dollars or one hundred dollars.

"The idiosyncracies and prejudices of investors must be reckoned with. Few are logical. They are accustomed to a par value of \$100 per share, and if we now argue to them that a share of stock of the par value of \$50 or \$10 will be inherently as valuable in respect of the equity it actually symbolizes or represents as a share of \$100 par value, they will not believe us. * * *

"Practically, the reduction of the par value of the stock of the Third Avenue Railroad to 50 or 10 would be the compulsory writing or wiping off pro tanto of the actual investment it now represents. * * *

The plan of reorganization submitted by the bondholders involves a reduction in fixed charges of more than \$800,000, the investment of \$7,000,000 of new money and a reduction in capital liabilities of about \$5,000,000. As against the old securities, which include \$15,995,800 of stock, \$37,560,000 of bonds and \$5,540,172 of accrued interest, totaling \$59,095,972, there would be under the reorganization plan \$16,590,000 of stock, \$15,790,000 of refunding 4 per cent bonds and \$22,536,000 of adjustment income bonds, totaling \$54,916,000.

Consolidation of Chicago Elevated Railways

Henry A. Blair, who has recently been conducting negotiations on behalf of a syndicate headed by the First National Bank, New York, N. Y., for the consolidation of the elevated railways in Chicago, recently issued a statement regarding the progress of the negotiations, in part as follows:

"Mr. Blair has spent a busy two weeks in going over the details of the plan for the consolidation of the elevated railways with his bankers and attorneys and a great many of the necessary details have been satisfactorily passed upon. All essential points have been considered by the attorneys and bankers, and no hitch of any sort in the successful working out of Mr. Blair's proposition has been found that may interfere with the ultimate consummation of that deal.

"Conditions in the financial market during the last week have caused Mr. Blair to delay negotiations for a short time, as he considers that in a deal of this size more favor-

able money conditions should be at hand in order that he may be able to realize better prices and less expensive rates in financing the proposition. Accordingly he has arranged to return to New York on July 7, 1910, by which time it is hoped banking conditions will have become more settled and will permit of a more favorable consummation of the plan."

No statement has since been issued in regard to the progress of the negotiations.

Augusta-Aiken Railway & Electric Company, Augusta, Ga.—Control of the Augusta-Aiken Railway & Electric Company, which holds the stock of the Augusta Railway & Electric Company, North Augusta Electric & Improvement Company, Augusta & Aiken Railway, North Augusta Hotel Company and the North Augusta Land Company, is said to have passed to Redmond & Company, New York, N. Y., through the purchase of the holdings of the E. H. Harriman estate in the company.

Charleston Consolidated Railway & Lighting Company, Charleston, S. C.—The Charleston Consolidated Railway, Gas & Electric Company has increased its capital stock from \$1,500,000 to \$2,000,000 by creating an issue of \$500,000 of 6 per cent preferred stock in \$50 shares, which has been taken by the Charleston Consolidated Railway & Lighting Company.

Chicago (Ill.) Consolidated Traction Company—Judge Grosscup heard argument on July 12, 1910, on the claims of the holders of the securities of the Cicero & Proviso Street Railway that the plan for the reorganization of the Chicago Consolidated Traction Company does not offer them a fair settlement. C. G. Goodrich, president of the Twin City Rapid Transit Company, Minneapolis, Minn., and G. G. Moore, receiver of the Chicago & Milwaukee Electric Railroad, have been retained by Judge Grosscup to assist him in passing on the claims of the holders of the securities of the Cicero & Proviso Street Railway.

Cincinnati (Ohio) Traction Company—The bond department of the Fifty-third National Bank of Cincinnati recently offered at par and interest \$180,000 of the issue of \$360,000 of 5 per cent equipment notes issued by the Fidelity Trust Company, Philadelphia, Pa., trustee, and guaranteed as to principal and interest by the Cincinnati Traction Company. They are dated July 1, 1910; are of a par value of \$1,000 and the principal is due \$36,000 yearly on Jan. 1 from 1911 to 1920, inclusive. Besides being guaranteed by the Cincinnati Traction Company these notes are a first mortgage on 50 new prepayment cars and 50 new summer cars, the title to which rests with the trustee until the final payments of these notes. Twenty-five per cent of the total cost of this equipment is paid in cash.

Hornell & Bath Interurban Railway, Hornell, N. Y.—The Public Service Commission of the Second District of New York has authorized the Hornell & Bath Interurban Railway to issue \$195,000 par value of its bonds, the proceeds to be used in connection with the construction of the company's line from Hornell to Bath, Steuben County. This amount is in addition to \$450,000 of bonds previously allowed.

Los Angeles (Cal.) Railway—A meeting of the stockholders of the Los Angeles Railway will be held on Sept. 8, 1910, to consider increasing the capital stock of the company from \$5,000,000 to \$15,000,000 to be divided into 150,000 shares of the par value of \$100 each.

Memphis (Tenn.) Street Railway—The suit brought in the interest of certain minority holders of the securities of the Memphis Street Railway to set aside the sale of the property of the company to the American Cities Railway & Light Company has been decided adversely to those who brought the suit by the Supreme Court of Tennessee.

Western Ohio Railway, Lima, Ohio—Depositors of stock of the Western Ohio Railway under the agreement of Dec. 9, 1904, have been notified to present their certificates of deposit at the office of the Cleveland Trust Company, Cleveland, Ohio, for exchange for stock of the Western Ohio Railroad on the basis of one share of stock of the Western Ohio Railroad for three shares of stock of the Western Ohio Railway. Fractional shares which may result will be adjusted by purchase or sale at \$27 per share.

Traffic and Transportation

Arbitration of Wages in Connecticut

The first hearing before the board of arbitration consisting of Clarence Deming, David E. Fitzgerald and Judge W. S. Case, to consider the terms of service of the employees of the Connecticut Company, was held at New Haven on July 9, 1910. The company was represented by Edward G. Buckland, Calvert Townley, vice-president of the Connecticut Company, and John K. Punderford, general manager of the company. A representative of the men asked the board to adjourn the hearing for a week, but the arbitrators ruled that the preliminaries should proceed and that the case should then be adjourned until July 13. The principal evidence submitted on July 9 on behalf of the men related to the increase in the cost of living in the last few years and to the wages of those working at trades and the increases in wages to employees in trades. Mr. Buckland, for the company, objected to evidence being admitted regarding the wages of skilled mechanics, but Judge Case admitted the exhibit after the representative of the men who had offered it explained that it had been submitted principally to show how the earnings of men engaged in other pursuits had been advanced. According to the representative of the men there are 1680 motormen and conductors in the employ of the company. They work on an average of 9 hours and 15 minutes a day and receive an average of 23 cents an hour, or \$2.12 a day.

On July 13 data were submitted by the representatives of the company concerning the rates of pay on the various lines of the company before they came into the possession of the Connecticut Company in June, 1904. The increase in wages since that time ranges from 9 per cent in Bridgeport to 32 per cent in Middletown. The advance in New Haven has been 16.32 per cent. The average increase for all the lines since 1904 is about 22 per cent. Mr. Townley reviewed the meetings which had been held between him and a committee of the employees to consider the subject of terms of service. The first meeting was held in March, 1910. Mr. Townley explained the condition of the finances of the company to the representatives of the men, and later sent them a notice of an increase in wages which provided a sliding scale from 21½ cents an hour to 26 cents an hour to extend over eight years of service. On March 23 another conference was held. The chairman of the committee suggested that the rates should remain the same, with the maximum to be reached in six years and expressed the opinion that such a schedule would be accepted. This schedule was posted on April 6 to go into effect on April 9, 1910. Subsequently the members of the committee requested Mr. Townley to give the wage question further consideration, as the men on the New Haven and the Norwich divisions objected to the proposed scale. They asked for a scale of wages to range from 22½ cents an hour to 27½ cents an hour. This Mr. Townley would not entertain. On May 3 Mr. Townley was informed that the men were voting whether they would accept the scale or ask a higher one. Later he was advised that the representatives of the men had arranged a conference with President Mellen. Mr. Mellen declined to discuss the subject of wages with the men.

The evidence submitted by the representatives of the men on July 14, 1910, related largely to the finances of the company and to its ability to meet the increase which the men had asked. Mr. Buckland, for the company, offered as evidence the rates of wages paid to employees of electric railways east of Buffalo, the conditions on which are approximately the same as those on the lines of the Connecticut Company. Frederick M. Ward, a real estate dealer, testified that rents of apartments such as electric railway employees in New Haven occupy had decreased lately.

At the hearing before the board on July 15, 1910, Charles S. Mellen, president of the company, said that the representatives of the men had broken faith with the management of the company by not making a really serious effort to bring about the acceptance by the men of the scale of 21½ cents to 26 cents an hour. Both sides closed their cases on the morning of July 15. Mr. Punderford said that he had considered the advisability of increasing fares. At

one time the fare from New Haven to Savin Rock, a distance of $4\frac{1}{2}$ miles, was 20 cents. The lines in New Haven were then controlled by several companies and there were no transfer privileges. Not long ago the fare from New Haven to Lighthouse, a distance of 10 miles, was 10 cents. Now it is only 5 cents.

Subway Traffic Order Suspended Temporarily

At the request of the Interborough Rapid Transit Company the Public Service Commission of the First District of New York has suspended for 30 days its order of April, 1909, which required the company to maintain a headway of $2\frac{1}{2}$ minutes in the subway in the daytime and will allow the company to establish a headway such as it deems that traffic requires on the promise of the company to provide a seat for every passenger. Traffic both in the subway and on the elevated lines decreases greatly in the summer on account of the hot weather and the number of people who are out of town. The difference in the number of passengers carried in the subway during the months of heavy traffic as compared with the months of light traffic is forcibly illustrated by the record of the company for April 13, 14 and 15, 1909; June 28, 29 and 30, 1910, and July 5, 6 and 7, 1910, on which the request of the company was based. The record for April 13, 14 and 15, 1909, shows that 628,698 passengers, 631,069 passengers and 603,459 passengers were carried, respectively. The record for June 28, 29 and 30, 1910, shows that 628,698 passengers, 631,069 passengers and 603,459 passengers were carried, respectively. The record for July 5, 6 and 7, 1910, shows that 694,325 passengers, 625,845 passengers and 616,170 passengers were carried, respectively. The request of the company for the suspension of the order as made by Frank Hedley, vice-president and general manager of the Interborough Rapid Transit Company, under date of July 11, 1910, follows:

"On April 5, 1910, the Public Service Commission issued an order after rehearing case No. 1211 that the Interborough Rapid Transit Company operate on the local and express tracks of the subway division enough trains in each half hourly period, beginning at the even hour and half hour, to provide a number of seats at least equal to the number of passengers or the maximum number of cars and trains that can be operated with subway cars now and hereafter owned and equipped, and further stipulates that not more than a $2\frac{1}{2}$ -minute interval shall be operated between 6:46 a. m. and 6:41 p. m. and not more than a 3-minute interval between 6:41 p. m. and 11:59 p. m.

"Heretofore during the summer months when the riding on the elevated and subway is greatly decreased on account of the hot weather and the large number of people out of town for the summer, your commission has consented to a suspension of any service orders that were based on the heavy winter travel.

"As a comparison between the heavy winter travel and the summer travel you will note that in March, 1910, on the subway we averaged about 830,000 people per day, while during June our average was only 677,000, and July and August will run considerably less than that of June.

"We therefore would respectfully request that service orders against this company be suspended during the summer months, especially that part defining the intervals, it to be understood that this company will continue to observe that part of the order which calls for a seat per passenger or the operation of a maximum number of trains during the period where a seat per passenger is impossible."

Rehearing Asked in West Chester Fare Case.

The West Chester Road Improvement Association has filed an application with the Railroad Commission of Pennsylvania for a rehearing in the matter of the complaint of the association against the Philadelphia & West Chester Traction Company, Philadelphia, Pa., for establishing six 5-cent fare zones between Sixty-third and Market Streets, Philadelphia, and West Chester, Pa., instead of five. The substance of the decision of the commission denying the complaint was published in the *ELECTRIC RAILWAY JOURNAL* of July 2, 1910, page 55. The following reasons are given by the association for a rehearing:

- "1. The commission erred in dismissing the complaint.
- "2. The commission erred in holding that the most equitable arrangement of the fare zones is that which makes them practically equal in distance, without considering the arrangement of the termini of the zones so as to fix them at the settlements or villages along the line when practical.
- "3. The commission erred in not recommending the system of zones on the main line to conform to the density of the travel in the different sections on that line.
- "4. The commission erred in not recommending that the defendant should discontinue issuing free passes to all the public officers along the main line.
- "5. The commission erred in holding that complainants found no fault with the through rate of fare from Philadelphia to West Chester.
- "6. The commission erred in holding that the zones recommended by complainants would be considerably shorter than they now are.
- "7. The commission erred in holding that if the recommended zones were adopted it would occasion more or less dissatisfaction and complaint on the part of the residents all along the line between Newtown Square and West Chester, the result of which would be that the dissatisfaction would probably be greater than it is at present.
- "8. The undersigned further apply for rehearing to prove to the commission that if the recommended zones are adopted no dissatisfaction will be occasioned between Newtown Square and West Chester or anywhere else on the line.
- "9. The commission erred in not recommending that the defendant should reduce the fare for the school children."

Progress of Arbitration in Massachusetts

Three hearings have been held by the arbitration board appointed to consider the problem of wages on the Springfield Street Railway, the Worcester Consolidated Street Railway, the Worcester & Southbridge Street Railway, the Worcester & Blackstone Valley Street Railway, the Worcester & Holden Street Railway, and the Marlboro & Westboro Street Railway, all controlled by the New England Investment & Security Company. As previously announced in the *ELECTRIC RAILWAY JOURNAL*, the arbitration board consists of C. S. Hamlin, chairman, E. C. Foster and W. P. Hayes. The companies were represented at the hearings on July 11, 12 and 19 by Charles W. Bosworth, Springfield, Mass., and the employees were represented by William B. Fitzgerald. The three hearings thus far held have been devoted mainly to testimony by employees' representatives as to the increased cost of living during the past three years. Counsel for the companies objected to much of the testimony on the grounds that they were prepared by interested parties, that they were not susceptible of being readily checked and that they did not indicate percentage increases. The companies showed that maximum wage increases of 23 to 25 per cent had been made in 1903 and 1908. The hearings were continued to July 25 to enable further testimony to be submitted by the companies.

Owl Car Service in Harrisburg—The Central Pennsylvania Traction Company, Harrisburg, Pa., inaugurated a half-hourly all-night service on its Third Street belt line between 1 a. m. and 5 a. m. on July 18, 1910. Should the patronage justify it the service will be made permanent.

Reduction in Fare Ordered on Rochester & Suburban Railway—The Public Service Commission of the Second District of New York has decided that the fare of 10 cents charged on the Rochester & Suburban Railway between Rochester and Sea Breeze, on Lake Ontario, in Irondequoit, or between any points intermediate thereto should be 5 cents. The company has been ordered to put into effect a new tariff on or before August 1, 1910.

Employees in New Orleans Accept Company's Offer—On July 16, 1910, the motormen and conductors in the employ of the New Orleans Railway & Light Company, New Orleans, La., voted to accept the offer of the company of a 3-year contract at $22\frac{3}{4}$ cents an hour for the first year, 23 cents an hour the second year and $23\frac{1}{4}$ cents an hour the third year. The original request of the men was for a sliding scale of wages for three years, the maximum wage to be 25 cents an hour.

Indianapolis Trade Association Makes Second Successful Trip—Four cars filled with representatives of the Indianapolis Trade Association were operated successfully on July 15, 1910, over the lines of the Indianapolis & Cincinnati Traction Company and the Cleveland, Cincinnati, Chicago & St. Louis Railroad, to more than 20 towns and cities. Frequent concerts were given by the two bands which accompanied the members of the association. This was the second trip of the kind that the members of the association have made, and it was so successful that the officers of the association have announced that another trip will be arranged.

Arbitration of Wages in Toronto—The Toronto (Ont.) Railway and its employees having failed to agree on the question of wages a board of conciliation has been formed to consider the question. Either or both parties have the right to reject the decision of the board of conciliation; but under the act passed by the Dominion Government, it is provided that such a board shall consider such disputes if both parties fail to come to any agreement. The employees have appointed John G. O'Donoghue to represent them, while the company has selected J. P. Mullarkey as its representative. These two members have selected Judge John A. Barron, Stratford, Ont., as the third member of the board.

Holiday Record of the Chicago & Milwaukee Electric Railroad—The record of the Chicago & Milwaukee Electric Railroad, Highwood, Ill., for July 2, 3 and 4, 1910, is very interesting compared with the same three days in 1909. The gross receipts of the company for July 2, 3 and 4, 1910, were \$23,001, as compared with \$21,026 for the same period of 1909. The car miles for July 2, 3 and 4, 1910, were 46,005, as compared with 43,422 for the same period of 1909. The earnings per car mile for July 2, 3 and 4, 1910, were \$.50, as compared with \$.484 for the same period of 1909. The passengers carried for July 2, 3 and 4, 1910, were 118,657, as compared with 105,644 for the same period of 1909. On July 2, 3 and 4, 1910, all trains were operated on schedule time and no cars were turned in on account of being out of repair.

Increase of Commutation Rates in New Jersey—The Interstate Commerce Commission on July 14, 1910, announced its intention to permit the proposed increased commutation rates between New York and New Jersey points to go into effect July 20, 1910, and then to determine the justice of the new rates while they are in operation. The announcement followed the hearing before the commission on July 12, 1910, when representatives of the Board of Public Utility Commissioners of New Jersey and of the commuters appeared and argued for the suspension of the rates on the ground that they were unreasonable. The rates were originally intended to go into effect on June 29, 1910. At the request of the commission, however, the date was postponed until July 20. These rates make up part of general increases in commuters' rates in all directions out of New York City, but they are the only ones that come under the classification of interstate commerce.

Fare Complaint Against Schenectady Company Dismissed—The Public Service Commission of the Second District of New York has dismissed the complaint of residents of Niskayuna, Schenectady County, and Colonie, Albany County, against the Schenectady Railway, regarding the 10-cent fare to stop 8. The commission holds that it has not been shown to its satisfaction that the fare from Schenectady to stop 8 is unreasonable. Hearing was had upon the complaint and it was shown that since 1902 the Schenectady Railway has divided its line between Schenectady and Albany into five zones; that the first zone extends from Schenectady to stop 6, a distance of 4.26 miles, and the commission was asked to extend the 5-cent fare to stop 8, a distance of 5.2 miles. A number of persons in the locality were opposed to the change as it would result in increasing the fare from Albany to stop 6, and a petition signed by 27 persons was filed in opposition to the change asked for in the complaint.

A Little Trip Through History—The Lehigh Valley Transit Company, Allentown, Pa., has issued an illustrated souvenir hand book setting forth the beauties of a trip over its celebrated "Liberty Belt Route" between Phila-

delphia and Delaware Water Gap via Allentown and Bethlehem. It is entitled "A Little Trip Through History," and gives a concise sketch of the towns along the route and a history of incidents of the revolutionary period which are connected with various points on the system. A map in colors shows the territory traversed by the company's lines, by connecting electric railways and by the steam railroad between Philadelphia, Bethlehem, Mauch Chunk, Pottsville and the Delaware Water Gap. The publication is designed solely to bring to the attention of the public the historic associations of the territory and its picturesque scenery and it contains no schedules or display advertising. The company says that "A Little Trip Through History" has brought better results than any other of its various methods of advertising.

Fare Complaint Dismissed—The Public Service Commission of the Second District of New York has dismissed the complaint of various residents along the lines of the Western New York & Pennsylvania Traction Company about the passenger fare charged between Allegany and Olean. The complaint alleged that the company charged 10 cents as a single trip passenger fare between Allegany and Olean, an alleged distance of four miles, which it was claimed was unreasonable and excessive. The complaint also alleged that the service between these points was inadequate. A hearing was given upon the complaint but no testimony was submitted to show that the service was insufficient. Evidence was submitted by the company which showed that it was running 24 cars each way per day between Olean and Allegany on six days of the week and 26 cars on Saturday and it also appeared at the hearing that the company was selling for 15 cents and using on its line a round trip ticket between these points, which is sold at several public places in Olean and in Allegany, unlimited as to time or persons using the same, and was also selling and using upon its line school ticket books at half rate for children attending school, each of which tickets entitled passengers riding thereon to transfer privileges in Olean and enabled the passengers to ride from the corporation line in Olean on the east or south to the Back Five Mile Road west of the corporation limits in Allegany, a maximum distance of about six miles with the privilege of a transfer.

Service During Meeting of Elks in Detroit—The Elks met in Detroit during the week which commenced July 10, 1910, and the Detroit United Railway readjusted its service so as to afford the delegates at the meeting the greatest facilities possible on its lines during their stay in the city. Under a special interurban schedule the 11 p. m. cars on the Flint division ran all the way to Flint, instead of to Oxford only, as usual; on the Rapid Railway the 11 p. m. cars ran to Port Huron instead of to Mt. Clemens only; on the Toledo line cars ran through to Toledo, instead of to Monroe only. In addition 11 p. m. service was provided to Ann Arbor, Pontiac, Farmington and Northville. During the Elks' parade on the morning of July 14, and the automobile parade on the afternoon of July 15, the streets in the heart of the city were in full possession of the Elks, so that the service of the company had to be changed considerably. Woodward cars were not able to come all the way to the city hall, nor was any car able to cross Woodward Avenue. During the automobile parade, however, the Jefferson-Grand River cars were run without interruption, in order to take the people to Belle Isle. F. W. Brooks, general manager of the company, addressed the following communication to the employees of the company previous to the meeting: "Particular attention is called to the fact that the convention and public gatherings which are continually being held in Detroit are largely attended by persons who are strangers in the city, and therefore must depend to a great extent upon the information given them by the citizens to enable them to reach different points in the city. As a general rule convention visitors wear badges and can be distinguished in that way. All conductors will pay special attention to these people and give them all information possible in regard to proper cars to take at any point, transferring, etc., though unnecessary conversation must not be held. In that way they will be made to feel welcome and will leave with a favorable impression of the city."

Personal Mention

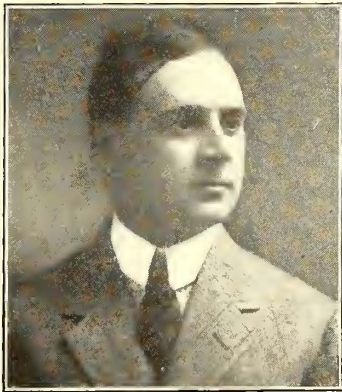
Mr. C. D. Phillipp has been appointed trainmaster of the Oregon Electric Railway, Portland, Ore.

Mr. C. A. Coolidge has been appointed general manager of the Oregon Electric Railway, Portland, Ore., to succeed Mr. Guy W. Talbot, who resigned to become president of the Portland Gas & Coke Company, Portland, Ore.

Mr. Walter L. Fisher has accepted the appointment as special traction counsel for the local transportation committee at Chicago, and has begun work with Mr. Howard Hayes, assistant corporation counsel of Chicago, upon the ordinance designed to extend the franchise of the Chicago Railways over the lines of the Chicago Consolidated Traction Company.

Mr. C. N. Ryan has been appointed auditor of the Wilmington & Philadelphia Traction Company and the Southern Pennsylvania Traction Company, which have recently taken over railway, electric light and telephone interests in Wilmington, Del., and vicinity. Mr. Ryan's electric railway work dates from March, 1905, when he gave up the practice of public accounting to accept the position of auditor of the Michigan United Railways, Lansing, Mich. In October, 1906, he entered the employ of J. G. White & Company, Inc., New York, N. Y., as traveling auditor in the operating department of the company, and continued in this capacity until October, 1907, when he was transferred to the Eastern Pennsylvania Railways, Pottsville, Pa., as assistant secretary and assistant treasurer. In February, 1910, Mr. Ryan was transferred to the Albany Southern Railroad, Hudson, N. Y., as auditor. The Wilmington & Philadelphia Traction Company and the Southern Pennsylvania Traction Company are properties with which J. G. White & Company, Inc., are identified.

Mr. Mortimer P. Reed, who has been appointed general superintendent of the electric railway properties controlled by the Murdock syndicate, including the Chicago, South Bend & Northern Indiana Railway and the Southern Michigan Railway, South Bend, Ind., has been connected with the Murdock interests for 10 years. Mr. Reed is 38 years old, and has resided in South Bend for 18 years. For eight years before entering railway work he was connected with the Birdsell Manufacturing Company. He entered the employ of the Indiana Railway as purchasing agent in 1900. In 1903 he was also elected secretary of the company. In 1905 he was made secretary and purchasing agent of the Northern Indiana Railway and continued in that capacity until 1907. From 1901 to 1906 Mr. Reed also acted as president of the South Bend & Southern Michigan Railway. Mr. Reed was secretary of the Southern Michigan Railway from 1906 to 1908, and from 1908 until March, 1910, he was secretary, treasurer and general superintendent of the Southern Michigan Railway. When the Southern Michigan Railway was sold to the Murdock syndicate in March, 1910, Mr. Reed represented the stockholders in the sale and made the final clearance. He then became assistant general superintendent of the Chicago, South Bend & Northern Indiana Railway and the Southern Michigan Railway.



M. P. Reed.

OBITUARY

John D. E. Duncan, for the past six years managing engineer for Sanderson & Porter, New York, died at the home of his mother in Ann Arbor, Mich., on July 13. He was graduated from Michigan University, in the School of Engineering, with the class of 1893, and later took a post-graduate course at Cornell University, from which he received the Master's Degree in Mechanical Engineering. The six and one-half years following were spent in engineering work with various companies, and in 1901 he joined the engineering forces of Sanderson & Porter.

Construction News

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

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

RECENT INCORPORATIONS

***Elgin (Ill.) Traction Company.**—Incorporated in Illinois to build an electric railway in Elgin. Capital stock, \$100,000. Incorporators: George S. Webb, William T. Angell and W. D. Ball.

***Columbus, Mt. Vernon & Mansfield Railway, Columbus, Ohio.**—Incorporated in Ohio to build an electric railway to connect Columbus and Mansfield, via Mt. Vernon. Capital stock, \$10,000. Directors: J. W. Lehman, J. M. Adams, David Lehman, Thomas W. Varley and George W. Rhodes.

Pittsburgh, Steubenville & Wheeling Street Railway, Pittsburgh, Pa.—Chartered in Pennsylvania to build an electric railway to connect Pittsburgh, Steubenville and Wheeling. A 4-mile line will be built between Dormont and Bridgeville. Capital stock, \$40,000. Incorporators: W. E. Hildebrand, Oliver Building, Pittsburgh, president; John F. Klein, Carnegie, and C. W. Behney, Cecil. [E. R. J., Feb. 27, '09.]

***Cincinnati & Pittsburgh Electric Railway, Huntington, W. Va.**—Incorporated in Delaware to build electric and steam railways in Ohio. It is said to be the intention to construct a line from Cincinnati, Ohio, to Pittsburgh, Pa. Capital stock, \$1,000,000. Incorporators: A. E. Cox, F. S. Kanode, A. W. Werninger, C. P. Sanborn and C. R. Wyatt, all of Huntington.

FRANCHISES

Yuma, Ariz.—Hiram W. Blaisdell, president of the Yuma Light & Power Company, has asked the Council for a franchise to build an electric railway through certain streets in Yuma.

Oakland, Cal.—The Southern Pacific Company, San Francisco, has asked the Council for a franchise to extend its tracks along the bay shore in North Oakland to the right of way obtained by franchise in Berkeley. If this franchise is granted it will supply the connecting link to complete the loop system of electric service which the company expects to establish in Berkeley.

Portersville, Cal.—F. W. Nofziger and associates have been granted a 50-year franchise by the Council to build a railway in Portersville. [E. R. J., June 4, '10.]

De Kalb, Ill.—The Chicago & Milwaukee Railroad, Chicago, has asked the Council for a franchise to build its railway over certain streets in De Kalb.

East St. Louis, Ill.—The East St. Louis & Suburban Railway has been granted a franchise by the Council to operate its cars around the Third Street loop.

East St. Louis, Ill.—The East St. Louis Railway has been granted a franchise by the Council to extend its line from the former city limits to the present city limits at Eighty-ninth Street, Edgmont.

Pana, Ill.—The Decatur Southern Traction Railway, Decatur, has been granted a franchise by the Council to build an electric railway in Pana. It will connect Decatur, Macon, Assumption and Pana. R. McCalman, Decatur, chief engineer. [E. R. J., July 16, '10.]

Peoria, Ill.—The Peoria & Galesburg Railway has been granted a 40-year franchise to build a railway in Peoria. S. F. Atwood, Peoria, secretary. [E. R. J., June 4, '10.]

Marlboro, Mass.—The Boston & Western Electric Railway, Boston, is making arrangements to file applications for franchises in the cities and towns through which its line will pass, namely, Marlboro, Sudbury, Wayland, Maynard and Waltham. [E. R. J., July 16, '10.]

Springfield, Mass.—The Springfield Street Railway will ask the Railroad Commission for the approval of a franchise to extend its tracks along St. James Avenue, Springfield, as far as the Boston & Albany Railroad bridge.

Lincoln, Neb.—The Omaha, Western & Lincoln Railway has asked the Council for a 99-year franchise to build an electric railway in Lincoln. This is part of a plan to build a 219-mile railway to connect Omaha, Hastings and Lin-

coln. Frank F. Schaaf, general manager. [E. R. J., July 16, '10.]

Bolivar, N. Y.—The Southwestern New York Traction Company has applied to the Public Service Commission for permission to exercise franchises and privileges and for a certificate of public convenience and necessity. This proposed 18-mile railway will connect Bolivar, Scio, Allentown and Wellsville. B. F. Patterson, Bolivar, general manager. [E. R. J., June 25, '10.]

St. John, Ore.—The Portland Railway, Light & Power Company, Portland, has been granted a franchise by the Council to build a railway over certain streets in St. Johns.

Scranton, Pa.—The Scranton & Lake Ariel Railway, Scranton, recently incorporated, has asked the Council for a franchise to build a railway over certain streets in South Scranton. John J. Brown, president. [E. R. J., June 11, '10.]

Sharon, Pa.—The New Castle, New Wilmington & Sharon Railway, New Castle, will ask the City Council for a franchise to build a railway in Sharon. The proposed railway will connect New Castle, New Wilmington and West Middlesex, a distance of 15 miles. James Campbell is interested. [E. R. J., Mar. 26, '10.]

***Flemington, W. Va.**—W. J. Davidson and W. C. Wyckoff have been granted a franchise by the County Court to build an electric railway in Flemington.

TRACK AND ROADWAY

***Birmingham, Ala.**—F. A. Burr, Thos. O. Smith, Frank Nelson, Jr., and S. E. Thompson are reported to be considering plans for building an electric railway to connect Birmingham, Owenton, Shadyside and Ensley.

British Columbia Electric Railway, Vancouver, B. C.—This company has awarded the contract to McAlpine, Roberts & Company, Vancouver, for grading the extensions of its North Vancouver lines in the Capilno district.

Northern Electric Railway, Chico, Cal.—This company has been granted by the War Department, in conjunction with the Vallejo & Northern Railway, the privilege of constructing a swing draw railway vehicle and foot passenger bridge across the Sacramento River at the foot of M Street in Sacramento. The bridge will be a steel and concrete structure, and will cost, it is estimated, \$400,000.

Los Angeles (Cal.) Railway.—This company has begun work on a 1-mile double-track extension on Thirty-ninth Street, from Western Avenue to Vermont Avenue.

Porterville, Cal.—H. H. Holley, promoter of the proposed 87-mile electric railway to connect Porterville, Tulare, Poplar, Woodville, Springville and Globe, states that grading has been started on the line. The section between Tulare and Springfield will be completed first. [E. R. J., Feb. 5, '10.]

Tri-City & Northeastern Interurban Railway, Port Bryon, Ill.—This company has completed the permanent survey of its line between Albany and Morrison. The surveys for the entire route are completed and construction will soon be started on this projected electric railway, which is to connect Watertown, Hampton, Rapids City, Port Bryon, Cordova and Albany. J. W. Simonson, Port Bryon, president. [E. R. J., April 30, '10.]

Galesburg & Rock Island Traction Company, Rock Island, Ill.—Press reports state that this company has completed the preliminary arrangements and succeeded in financing the project. The proposed line will connect Galesburg and Rock Island, and will be 41 miles long. Warren C. McWhinney, president. [E. R. J., July 17, '09.]

Mason City & Clear Lake Railway, Mason City, Ia.—Press reports state that this company will spend nearly \$100,000 this fall in improving its line between Mason City and Clear Lake, a summer resort 10 miles west.

Waterloo, Cedar Falls & Northern Railway, Waterloo, Ia.—This company, it is said, will build a 21-mile extension through Dike to Trundy Center.

Arkansas Valley Interurban Railway, Wichita, Kan.—This company has graded 15 miles of its proposed 30-mile line between Wichita and Newton, Kan. Later it is planned to extend to Hutchinson, Kan., 55 miles from Wichita. The track is being laid with 70-lb. standard rails, bonded with

American Steel & Wire twin-terminal bonds. Four interurban cars are now on order with the Jewett Car Company and the St. Louis Car Company. Power will be purchased from the Kansas Gas & Electric Company at 33,000 volts. Ohio Brass Company overhead material will be used to distribute the 600-volt current to the cars. The offices of the company are at 145 North Emporia Street, Wichita, Kan. The personnel includes W. O. Van Arsdale, president; O. A. Boyle, vice-president and general manager, and Charles D. Bell, chief engineer. The cars of the new line will reach a terminal site at the business center of Wichita over the tracks of the Wichita Railroad & Light Company, which is one of the properties of the McKinley Syndicate, Champaign, Ill.

Louisville, Lincoln Farm & Mammoth Cave Traction Company, Glasgow, Ky.—It is stated that H. H. Snyder, representing Eastern capitalists, will soon begin surveys for this line. Arrangements have been made to finance this proposed 60-mile railway, which is to connect Louisville and Mammoth Cave via Glasgow, Bear Wallow, Uno, Goodnight, Hardyville, Cannier, Magnolia, Buffalo and Hogenville. J. M. Richardson, Glasgow, president, and J. Wood, secretary. [E. R. J., May 7, '10.]

***Southwestern Traction & Power Company, New Orleans, La.**—This company, it is said, has been formed to construct an electric railway to connect New Iberia, New Orleans and other points. F. W. Crosby, New Orleans, is said to be interested.

***McKanna Interurban Company, St. Louis, Mo.**—This company has been organized to build an interurban electric railway between St. Louis, Mo., and Oklahoma City, Okla., via Ada, Roff and Stonewall. Surveying will soon be started. Capital stock, \$500,000. The power plant is to be established 16 miles north of Ada, Okla. J. J. McKanna, Oklahoma City, president. The plan is to use part of the trackage of railroads extending out of St. Louis.

Catskill (N. Y.) Traction Company.—This company proposes to extend its line 12 miles from the Greene County Agricultural Society's Fair Grounds, at Cairo, westerly along the Susquehanna Turnpike to Oak Hill. W. C. Wood, president. [E. R. J., Feb. 5, '10.]

Cincinnati, Portsmouth, Pomeroy & Pittsburgh Electric Railway, Cincinnati, Ohio.—It is reported that this company has practically completed the preliminary arrangements and proposes to begin construction within 60 days on its proposed railway from Cincinnati to Pittsburgh along the Ohio River Valley. A. E. Cox, 1502 Third Avenue, Huntington, W. Va., president. [E. R. J., April 23, '10.]

West Tulsa Belt Line Railway, Tulsa, Okla.—This company is said to have finished grading and started track laying on its proposed 8-mile railway to connect Lefebvre and Lost City. W. E. Hawley is interested. [E. R. J., Sept. 18, '10.]

United Railways, Portland, Ore.—This company has awarded the contract for construction of the first 24 miles of its extension to Tillamook to Porter Brothers. This includes the long tunnel at Cornelius Gap. Surveying and securing the right of way between the 24-milepost and Tillamook is practically completed and bids for the work have already been opened. The located line will be extended from Tillamook to Bay City, thus giving this company an 80-mile route between Portland and the coast.

Chester (Pa.) Traction Company.—This company is reported to be considering plans for improving its lines in Chester and throughout the county. The work is to include the double-tracking of its railway between Wilmington and Darby.

Ogden (Utah) Rapid Transit Company.—This company is rapidly completing work on its extension from Hot Springs to Brigham City. Plans are under consideration for the extension of the Ogden canyon line through the Huntsville valley and Eden valley.

***Utah & Salt Lake Electric Railway, Salt Lake City, Utah.**—This company has been organized to build the proposed 70-mile electric railway to connect Salt Lake City and Payson via Sandy, Draper, Murray, Lehi, American Fork, Pleasant Grove, Provo, Springville and Spanish Fork. The capitalization will be \$1,500,000. Among those interested are: Simon Bamberger, Stephen Chipman, James

Clark, A. J. Evans, D. R. Beebe, George W. Craig, W. T. Reynolds and George C. Whitmore.

Richmond & Chesapeake Bay Railway, Richmond, Va.—This company has completed surveying routes between Ashland and Fredericksburg, where connection is made with the line from Ashland to Richmond and from Fredericksburg to Washington.

Ontario & Northern Railway, Ontario, Wis.—V. A. Stoddard, secretary, advises that this company will build a steam railroad and not an electric line, as reported in a recent issue. [E. R. J., July 2, '10.]

SHOPS AND BUILDINGS

Wichita Railroad & Light Company, Wichita, Kan.—This company is planning the construction of a new central repair shop and car house to furnish accommodations for the storage and repair work on the 75 cars now operated.

Blue Grass Traction Company, Lexington, Ky.—This company is planning the erection of a terminal station at Nicholasville. The company recently completed a line from Lexington to Nicholasville and contemplates further extensions into the Blue Grass country.

Kansas City Railway & Light Company, Kansas City, Mo.—This company is completing an addition to its main office building at Fifteenth Street and Grand Avenue, Kansas City, Mo. The new part is five stories high and has ground dimensions of 84 ft. x 110 ft. It is a brick structure. The first floor has a high ceiling and encloses a large railway and lighting substation. The railway equipment includes one 2000 kw, one 1500 kw and three 1000-kw rotary converters. The electric lighting equipment includes one 1500-kw rotary converter, one 750-kw Edison three-wire booster set, a 500-kw motor-generator set and a 3000 amp-hr. storage battery. The claim department, which now has other quarters, will be housed in the new structure.

Buffalo & Lake Erie Traction Company, Buffalo, N. Y.—This company has prepared plans for an addition and alterations to its car house in Buffalo. The addition will be built of brick, 65 ft. x 140 ft., and 18 ft. high. The estimated cost is \$18,000. The contractors are Constable Brothers.

Susquehanna Railway, Light & Power Company, Lancaster, Pa.—This company has moved into its new three-story fireproof building in Lancaster. The first floor will be used for office and machinery purposes, the second floor for general offices and the third floor by the receiving and accounting department.

POWER HOUSES AND SUBSTATIONS

Pacific Electric Railway, Los Angeles, Cal.—This company's new power plant at Covina Junction, Los Angeles, will be placed in operation on Aug. 1. The structure is of reinforced concrete and is being equipped with two 1000-kw generators. Power is obtained from the Kern River substation. Work of wrecking the company's old power house near the Indian Village has begun.

Arkansas Valley Interurban Railway, Wichita, Kan.—This company will build two substations, each to contain one 200-kw Allis-Chalmers motor-generator set with the necessary control equipment. Ohio Brass Company overhead material will be used to distribute the 600-volt current to the cars. Power will be purchased from the Kansas Gas & Electric Company, 33,000 volts.

Boston & Western Electric Railway, Boston, Mass.—It is reported that this company will build a power house at South Sudbury.

Frederick (Md.) Railway.—This company has decided to build a new power plant in Frederick. W. S. Taylor, general manager.

Monterey Railway, Light & Power Company, Monterey, Mex.—This company, which has a concession from the Mexican Government for supplying Monterey with water and light, has placed an order with Allis-Chalmers Company for a 100-hp, 220-volt, three-phase, 60-cycle, squirrel cage induction motor and three 50-kw transformers.

Sunbury & Selinsgrove Street Railway, Sunbury, Pa.—This company's new power plant at Sunbury has been completed and was put in operation July 13. The structure is 40 ft. x 84 ft. [E. R. J., April 9, '10.]

Manufactures & Supplies

ROLLING STOCK

West Penn Railways, Connellsville, Pa., is building 11 cars in its own shops.

Springfield (Mass.) Street Railway has purchased 12 cars from the Standard Steel Car Company and eight cars from the Wason Manufacturing Company.

Oil Belt Railroad, Oblong, Ill., which is constructing a 12-mile railway between Charleston and Mount Carmel, contemplates the purchase of 8 or 10 cars.

Citizens' Traction & Power Company, Albuquerque, N. Mex., which is building a line in Albuquerque, is considering the purchase of two gasoline motor cars.

Shawnee (Okla.) Electric Railway expects to purchase nine cars. It is building a 41-mile electric railway to connect Shawnee and Oklahoma City. About 10 miles of the route has been graded.

Jacksonville (Fla.) Electric Company, reported in the ELECTRIC RAILWAY JOURNAL of April 23, 1910, as contemplating the purchase of five cars, has ordered 10 cars from the Cincinnati Car Company.

El Paso (Tex.) Electric Company, mentioned in the ELECTRIC RAILWAY JOURNAL of June 25, 1910, as preparing specifications for several cars, has placed an order with the Cincinnati Car Company for six cars.

Pittsburgh (Pa.) Railways, which was noted in the ELECTRIC RAILWAY JOURNAL of March 12, 1910, as receiving bids for 150 double-truck city cars, has ordered 50 steel cars from the Standard Steel Car Company.

Indianapolis Traction & Terminal Company, Indianapolis, Ind., has placed an order with the Cincinnati Car Company for 25 single-end, closed cars. The cars will be equipped with two Westinghouse motors each and standard trucks.

Hudson & Manhattan Railroad, New York, N. Y., in conjunction with the Pennsylvania Railroad, has ordered 80 double-end, 200-hp, type M control and motor equipments from the General Electric Company for joint use on the main line of the Pennsylvania Railroad, which is to be electrified between Harrison and Jersey City. Mention of the contemplated purchase of this equipment was made in the ELECTRIC RAILWAY JOURNAL of June 18, 1910.

Cincinnati (Ohio) Traction Company, noted in the ELECTRIC RAILWAY JOURNAL of March 5, 1910, as having placed an order with the Cincinnati Car Company for 50 single-truck, open, 10-bench cars, has drawn the following specifications for these cars:

Seating capacity.....	50	Couplers..	Combination Hed-
Weight (car body only),		ley anti-climber and draw-	
approx.....	10,000 lb.	bar	
Length of body... 30 ft. 3 in.		Curtain fixtures... Cur. S. Co.	
Width over sills.. 7 ft. 1 3/4 in.		Curtain material,	
Over posts at belt. 7 ft. 6 1/2 in.		printed duck	
Sill to trolley base 8 ft. 9 1/2 in.		Fenders	Hunter
Body..... wood and metal		Hand brakes.....	Peacock
Interior trim,		Headlights	Dayton
white ash throughout		Motors.....	2-West. 101-B-2
Underframe	composite	Registers.....	Int. double
Bumpers,		Roofs.....	turtle back
3/8 in. x 7 in. steel plate		Step treads.....	Mason
Car trimmings,		Trolley base.....	two U. S.
polished bronze		Trucks, type.....	Brill 21-E
Control system,		Wheels.....	33-in. cast iron
single-end K-11 controller		All power wiring in conduit	

TRADE NOTES

Spencer Air Purifying Company, New York, N. Y., reports that the Spencer air purifier is now being used by the following electric railways: Lehigh Valley Traction Company, Hazleton, Pa.; Camden & Trenton, Camden, N. J., and the Pennsylvania Railroad, electric division.

C. A. Wood Preserver Company, Austin, Tex., has opened a sales office in Indianapolis for the State of Indiana, in charge of F. D. Rusling. The company reports that the increase in its business necessitated adding Chicago as a distributing point, which will facilitate making quick shipments for the Middle West.

National Railway Equipment Company, Chicago, Ill., announces that it has just completed an arrangement with one of the standard trunk line steam railroads whereby it is offering for sale a large number of freight cars in good repair. These equipments include 1000 box cars, 800 flat cars, 600 gondolas and a number of ballast and other types of cars.

Cutter Electrical & Manufacturing Company, Philadelphia, Pa., has closed a contract for the circuit breakers for the Chicago & Northwestern Railway's terminal power house in Chicago. The equipment consists of I-T-E motor-operated remote control circuit breakers and switches for the protection of the engine, turbine and motor-driven generators.

Western Electric Company, New York, N. Y., reports the receipt of an order from the Atchison, Topeka & Santa Fé Railroad for 600 of the new railway telephone selectors which it has recently developed. Following successful experimental installations, the New York Central & Hudson River Railroad and the Pennsylvania Railroad have also placed second orders for the new selector.

Kellogg Switchboard & Supply Company, Chicago, Ill., announces that J. C. Murray, sales engineer, has left on a six months' business extension trip through South America. Mr. Murray expects to visit customers, agents and friends of the Kellogg Switchboard & Supply Company in all the important cities, stopping at Bahia, Rio de Janeiro, Sao Paulo, Montevideo, Buenos Ayres, Santiago, Lima, Colon and other cities.

E. F. Wheaton has resigned as vice-president and general manager of the General Traction Development Company, Cleveland, Ohio, and has opened offices in the Engineers' Building. W. A. Hume, formerly assistant to the vice-president of the General Traction Development Company, has become associated with Mr. Wheaton. George H. Carpenter succeeds Mr. Wheaton as vice-president and general manager of the company.

Ackley Brake Company, New York, N. Y., has appointed the Chinese General Engineering Company of Shanghai as its selling agent for Ackley brakes in China. G. S. Ackley, proprietor of the company, who is making a trip around the world in the interests of the company, was greatly impressed with the opportunities for developing trade in China. Mr. Ackley believes manufacturers should visit the country and exhibit their wares. The Ackley Brake Company is now considering a plan to establish a factory in Japan.

Pay-Within Car Company, Philadelphia, Pa., announces that the Cleveland (Ohio) Railway has recently placed an order for 100 additional equipments of Pay-Within apparatus with the Chicago office of the Electric Service Supplies Company, general sales agents for the Pay-Within Car Company. These equipments include the necessary folding-door apparatus, control stands, etc., for converting four-door standard cars to pay-within operation, and are furnished under license of the Pay-Within Car Company. When this apparatus is installed the Cleveland Railway Company will have 200 pay-within cars in operation.

General Electric Company, Schenectady, N. Y.—Employees of the New York office on July 9 held their fifth annual outing and games at Langes' New Dorp Beach Hotel, New Dorp, S. I. The program included a dinner, served at 2 p. m., which was followed by a comedy ball game. This was one of the features of the outing, and was played between teams of the New York office, composed of the "Old Boys" and "Young Men." A number of other athletic events were held, prizes being awarded to the winners. Two corporation league baseball games were also played with the New Jersey Zinc Company, in which the General Electric Company lost the first game and won the second game.

Wagner Electric Manufacturing Company, St. Louis, Mo., has removed its office in Charlotte, N. C., to the Woodward Building, Birmingham, Ala., which will be in charge of J. F. Jones. Mr. Jones was born in Gainesville, Ala., and was graduated in 1901 from the Alabama Polytechnic Institute with the degrees of E. E. and M. E. He entered the employ of the General Electric Company, and in 1905 resigned to become connected with the Fort Wayne Electrical

Works as transformer sales engineer. In February, 1909, he resigned from the Fort Wayne Electrical Works and joined the home office force of the Wagner Electric Manufacturing Company at St. Louis, Mo. The Birmingham office will cover that part of Tennessee east of the Tennessee River, and all of the States of Mississippi, Alabama, Georgia and Florida. North and South Carolina, which have heretofore been handled from the Charlotte office, will now be handled from the Philadelphia office, which is located in the Real Estate Trust Building, in charge of John Mustard.

ADVERTISING LITERATURE

York Rolling Process Company, New York, N. Y., has issued a pamphlet describing and illustrating the York steel tie.

Maryland Steel Company, Sparrow's Point, Md., has issued a 30-page booklet describing Cunningham coal tar paint.

Q & C Company, New York, N. Y., has issued a bulletin describing and illustrating its rail-laying machine for renewing rails.

Railway Appliances Company, Chicago, Ill., has issued a leaflet describing the uses of the R. A. skid shoe which it manufactures.

Eclipse Railway Supply Company, Cleveland, Ohio, is mailing a folder describing the style "C" Eclipse life guard which it manufactures.

C. W. Hunt Company, New York, N. Y., has issued general catalog No. 102, in which are briefly described the various types of coal handling and hoisting machinery, conveyors, industrial railways, etc., which it builds.

Heywood Brothers & Wakefield Company, Wakefield, Mass., has printed a folder describing the Universal car seats which it manufactures. In connection with the folder the company is mailing a set of illustrations of its various types of car seats.

Cooper Heater Company, Carlisle, Pa., has issued an illustrated 20-page catalog, in which it gives a brief history of the growth and progress of car heating devices. The catalog also contains a detailed description of the new Cooper pressed steel heater which the company has just placed upon the market.

Wonham, Sanger & Bates, New York, N. Y., have issued a pamphlet entitled "The 'H-B' Life Guard in the American Continent," in which the merits of this device are described. The pamphlet also contains a list of the successful pick-ups made by "H-B" life guards in some of the larger cities where it is being used.

Highway Metal Culvert Department of the Penn Metal Ceiling & Roofing Company, Ltd., Boston, Mass., is distributing a time book for the use of foremen of highway departments engaged in laying highway metal culverts. The book also contains practical information of value to highway foremen relative to the highway metal culvert which the company manufactures.

The Public Service Commission has received a letter from Frederick W. Rowe of the Manhattan Bridge Three-Cent Line, M. E. Harmon, William C. Demarest, and Henry Roth, urging that a subway along Flatbush Avenue, from Atlantic Avenue to Eastern Parkway, and Livonia Avenue to New Lots Road, and also branch southerly on Utica Avenue and Nostrand Avenue be constructed at once. These four men agree that in such case they will take a lease to operate this subway, paying interest on the sinking fund of 1 per cent on the cost of the Flatbush Avenue portion, and a nominal rental for the balance. Should the proposition be favorably considered, they will organize a company in a form or in such form as will be satisfactory to the commission and the Board of Estimate, and take the necessary formal applications for the obtaining of this lease. The Public Service Commission of the First District of New York has placed on the city map the Utica Avenue subway route in the Borough of Brooklyn, extending south from Eastern Parkway to Jamaica Bay, some four miles. This is a route asked for by property owners, who have expressed their willingness to have such a line built by assessment.