

Electric Railway Journal

Consolidation of STREET RAILWAY JOURNAL and ELECTRIC RAILWAY REVIEW

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Now If Ever Is the Time to Check Motormen's Operation

WHAT shall we say about an electric railway which in this very day and hour wastes enough power to run a \$1,000,000 manufacturing plant in the same area of centralized power distribution which recently had actually to stop operations because it lacked but a fraction of the power so wasted! Why do we assert that power is being wasted? Because we don't believe that the motormen on this railway have suddenly become efficient in the use of power by reading a card and signing a pledge! How is the management to know they are efficient unless it uses an instrument that tells the facts?

For nearly twenty years we have preached to the point of apoplexy about the money that electric railways could save by using some device that would encourage the motorman to remember rather than to forget how to operate his car economically. Meanwhile, the checking instruments have been constantly improved; and the reasons for using them, such as big cars and dear coal, have become more imperative. Yet what are the facts, to-day? Hardly 10 per cent of the cars and less than 5 per cent of the operators are using car-checking devices of any kind! Are 95 per cent of American electric railways so skeptical that they must be convinced separately one by one that 10 to 30 per cent of their power is wasted at the car controller? Lack of funds cannot be considered the chief reason, because the instruments can earn their cost before they are fully paid for. This year there is the strong additional incentive for saving because of the prevailing shortage of fuel.

Responsibility for Adequate Rate Placed Clearly on Each Community

THE announcement of the War Finance Corporation that "the localities served by these various public utility enterprises should not expect the War Finance Corporation to make advances to any utility company whose statement shows that it is in actual need of increased revenue" and that the Corporation is not authorized to make direct advances to public utilities to take care of maturing issues, are important developments of the past week. The responsibility for permitting electric railways to charge adequate fares is purely up to the local authorities and that of furnishing necessary capital for utilities to the companies themselves and to the local banks, as we pointed out in an editorial entitled "What the War Finance Bill Will Do and Will Not Do," in our issue of March 30, although the Corporation announces that it is prepared to act as an instrumentality to which the banks can resort to obtain accommodation

on advances made by them to the utilities upon a character of security not available for discount at a Federal Reserve Bank. The federal government does not feel it should practically make up the deficits of certain companies so that a group of citizens may continue to enjoy utility service at less than cost. After this, each community must pay for what it is getting or learn to do without.

The announcements of the War Finance Corporation should hasten companies to plan for any capital requirements, with the knowledge that the Corporation is in a position to help the banks and even to make a direct loan in those exceptional cases "where it may be made to appear to the Corporation that a meritorious borrower is being unwisely discriminated against by the banks." It should also hasten state commissions and local authorities to take action on fare increases so both the local banks and the War Finance Corporation may know what their future, as regards income, may be.

How Operators Feel About Odd Unit Fares

NO SENSIBLE and fair person will deny that electric railways are entitled to more revenue, but railway men themselves are in doubt as to the better way of getting that increase. Those who have been closer to income statements than to cars seem to feel that the direct way of charging 1 or 2 cents more for flat fare is the simplest; but those who understand the practical difficulties of fare collection and the public psychology are not so sanguine.

The financier argues that since so many 5 and 10-cent items now cost an extra cent or two, pennies for street car use will be plentiful. The operator knows how difficult it is to get the majority of riders to provide themselves with but one coin representing the exact fare. Hence troubled visions of increased car-hours for the same number of riders are ever before him. He believes that if only there were a 6-cent coin riding would remain practically unaffected. Not so with the odd fare. The latter would continually remind the short rider that he was subsidizing the suburbanite, and he would quit riding and walk after a few distressing waits in getting change from harassed conductors. More than one operator has told us that nothing would please him more than building up short-ride nickel travel and making the long-distance rider pay for what he gets. This would mean that any additional fare collection would be handled outside of the congested section.

In some cases, where the suburban franchise explicitly limits the fare to 5 cents, these men suggest the simple expedient of giving only the minimum service called for in the franchise. This action, accompanied by figures

on the cost of the service, is likely to prove a quick short-cut to a saner rate of fare. On the whole, many practical operators feel that an adjustable zone system must come eventually if the street railway industry is to be conducted like a business and not like a philanthropy.

Rush-Hour Service Is Far from Profitable

AT THE 1916 convention the committee on cost of rush-hour service presented a report in which it was stated: "The fact that rush-hour service is not necessarily profitable because a substantial proportion of the receipts are taken during that period is not generally known." Since that time there has been plenty of time for publicity, but owing to war conditions committee activity has subsided and there has been no opportunity to carry out the suggestions of the report to the effect that steps be taken to keep alive interest in this very important topic.

To show that there is need for continued educational work along these lines, one need refer only to a recent editorial in a metropolitan daily paper in which the following comment was made: "The number of street cars and elevated trains that operate through the loop during the rush hours is limited to the physical capacity of the tracks. Inasmuch as business at these hours is more profitable for the companies than at any other period of the day it is to their own interest to operate as many cars as possible."

The editorial in question showed a proper comprehension of the local street railway situation in every other particular, but on this point of the cost of rush-hour service there was evidence of a lack of appreciation of the circumstances which make the transportation problem different from that of ordinary business. The writer of the editorial probably should not be criticised for failure to grasp this point. It is doubtful if it is well understood by all railway managers, to say nothing of the average layman.

Since that committee report was presented, less than two years ago, at least one of its recommendations has gone into general effect—namely, the daylight-saving plan. Another recommendation for the purpose of lowering the peak is coming into more general use—namely, one favoring the adoption of staggered hours for factories and stores. There has also been some consideration of the high cost of rush-hour service in the rulings by commissions here and there that cheaper tickets for workmen be eliminated.

Perhaps, therefore, we should not despair of getting a sympathetic appreciation of the strange position of electrical railways which have the smallest net return during the hours when riding is heaviest. Electric lighting and power rates are based on the principle that a rate schedule to be equitable to all consumers should make persons who need and create the peak-load service pay a price which will be commensurate with the extra cost of the service they are receiving. Surely, the time will come when the return on investment for electric railways will not be further impaired by requiring the use of more cars during the peak hours where service is already highly concentrated. Here, at least, is a good opportunity for publicity work on the part of electric railway managements.

Parked Autos Steal Streets

CAN you conceive what would happen to a railway which should dare park its cars on a downtown street all day long to avoid dead mileage between the morning and evening rush? Imagination fails us. To picture what an unkenneled press would do, we must go back to the time when we fell inadvertently out of an apple tree plump upon a dozing mastiff. Ah, yes, but this larceny of the public highway seems to be the undisputed privilege of the man who runs a car from a gasoline engine instead of an overhead wire.

It would be useless, perhaps, to talk about this abuse were it not for the fact that it injures the great mass of the public for the benefit of a comparatively few. In every city where complaints about poor street railway service are loudest there also we find that the streets were not only narrow originally but have been allowed to become mere lanes.

A municipality cannot permit the parking of automobiles from curb line to rails without forcing everything that moves to use the car tracks. When that occurs the cars that should be making 8 miles per hour can only do 4 miles per hour, and that means a reduction of carrying capacity by one-half. We can think of no more effective argument for disproving unfair allegations as to insufficient service than to tell the public that the seating capacity of the cars is not merely a question of the number and the size of cars but also of their speed. Let the argument run thus:

"The quicker we can get the cars around, the more seats we can offer you. What's the use of buying more cars when you won't let us work properly those we have? Besides, it would be impossible to get more cars through the streets during the rush hour anyway unless you keep the automobiles from choking the traffic channels.

"In the old days, hitching posts on the main streets were a sure sign of a jay town. There's no difference between a hitched wagon and a parked automobile, so far as your street railway service is concerned. You wouldn't want street cars to be parked all day, so why allow the automobile owner to use public property for a rent-free private garage?"

Boston Public Control Act Is Fundamental in Scope

THE act passed last week by the Massachusetts Legislature, placing the Boston Elevated Railway under the control of public trustees, marks a notable advance in utility regulation. The main features of the act have not been changed since the proposed bill was commented upon in the issue of April 27, but their importance warrants another mention of them. One important feature is the provision that the cost of service shall be at all times covered by the rates. An unlimited sliding scale is provided, and should the traffic under any particular fare or transfer arrangement be too small to yield the guaranteed return of 6 per cent (as well as the lower intermediate returns of the next four years), the deficit in the reserve fund is to be made up temporarily from the tax levies of the municipalities in which the company operates. In the last analysis, this means that the public will obtain and pay for precisely the volume and the character of service which it

wants, and it would be hard to suggest a fairer arrangement to investor, car-rider and community.

Another important provision is the transfer of supervision from the Public Service Commission to the five public trustees, appointed by the Governor. This means that in place of the former method of regulation without responsibility for management comes a new authority directly responsible for management. The ten-year terms of the trustees augur well for the protection of the property against political exploitation. If men of high caliber are appointed, as seems likely, efficient operation should be continued.

Not the least of the good features of the act is the fact that it places the company's securities upon an investment plane in Massachusetts only less stable than that now occupied by government bonds; that through it new capital needed to meet the increasing demands of the community for transportation can be obtained, and that service, so essential under war conditions, can and will be improved. We agree with President Brush, whose views regarding the law are printed elsewhere, that the act may well be regarded as epochal in its expression of the basic relation between service and cost. Its administration will be watched with interest.

Provide Now Against a Fuel Scarcity Next Winter

AS "LONG DISTANCE" weather prophets are notoriously unreliable there seems to be no possibility of an accurate forecast of the severity of the coming winter. But while we may not be able to estimate accurately the demands which the weather man will impose on Uncle Sam's coal pile or foresee all of the impediments he will put in the way of our transportation facilities, it certainly does not require a prophet to predict from the evidence now in hand that coal will be a scarce article next winter. We are being urged by the Fuel Administration, the coal people and many patriotic

agencies to "make hay while the sun shines" and provide now as fully as possible against our next winter fuel needs. It seems that too much emphasis cannot be placed on the subject of fuel preparedness and on the necessity of keeping our mines working at top speed throughout the summer.

To the large fuel user, however, fuel storage brings with it problems all its own. For example, there is a wastage in fuel and a labor charge involved in the handling and storage of fuel. Again, many utility companies do not have storage space available. Moreover, some of our coals are difficult to store because of the danger from spontaneous combustion. This last is particularly true of the Middle Western coals. As result of past sad experience many large users of fuel now wholly dependent on these coals hesitate over the storage proposition. The submerged method solves the fire hazard problem, but the pits required are expensive and take time and labor for their construction. They are, therefore, out of the question at this time. Fortunately other storage methods are available. The United States Bureau of Mines and several of our state university experiment stations have made extended studies along the general lines of coal storage and coal handling. The results of the work of these public research facilities are available to those interested and should prove of great value in connection with the present coal problem.

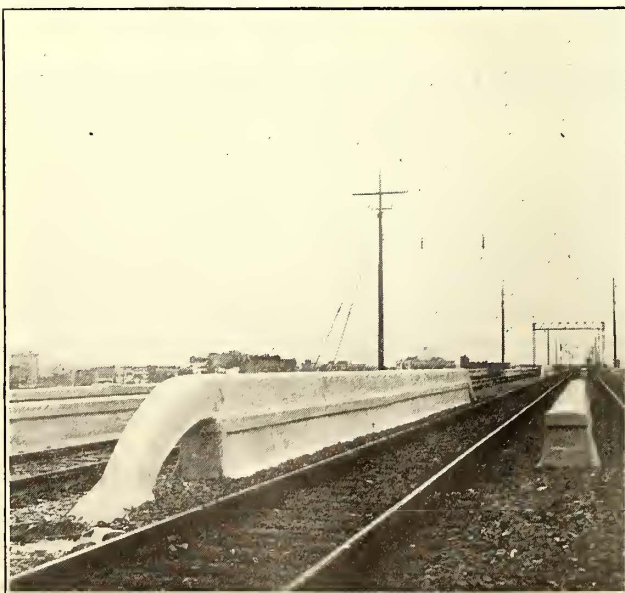
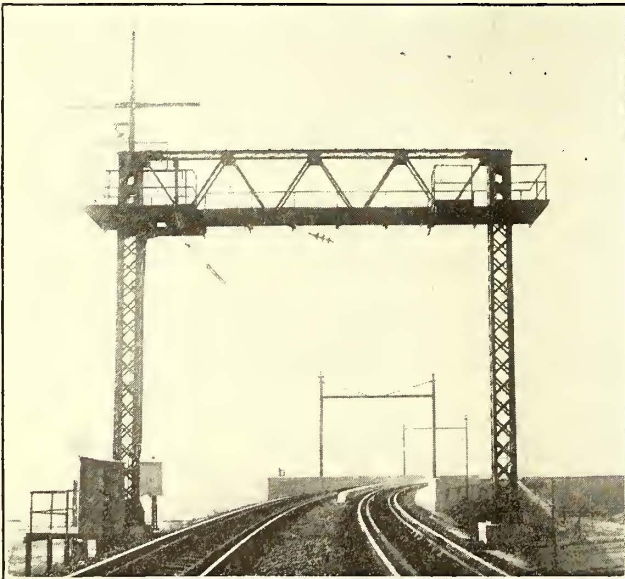
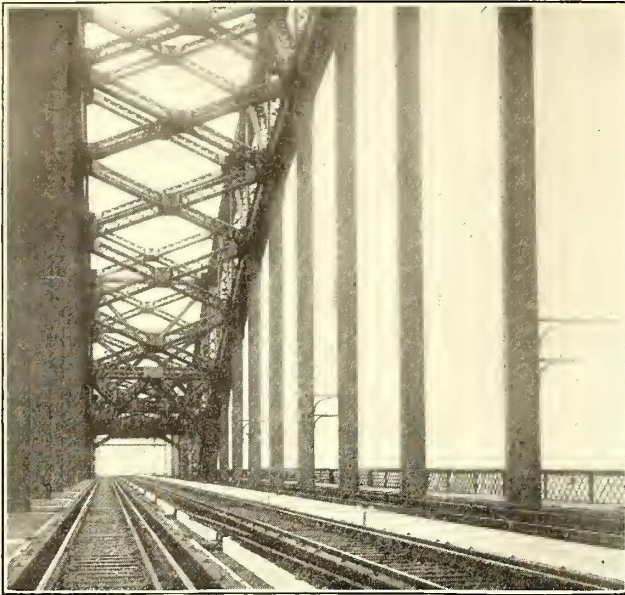
Nearly every railway utility has power conditions and fuel problems which in a way are peculiar to it alone. In some cases the effects of a fuel shortage may be alleviated by a permanent or breakdown connection with another power system which is more fortunately located with regard to the source of fuel supply or which is fed from a hydroelectric plant. In others some possibilities exist in the way of using a different fuel temporarily. But whatever the possibilities are they should be studied and plans should be laid to utilize them to their fullest extent should the emergency arise. Obviously the time to do the studying and planning is now.

War Finance Corporation Urges Public Utility Commissions and Municipal Authorities to Give Prompt Consideration to Applications From Utilities to Increase Their Rates

THE directors of the War Finance Corporation on May 24 authorized the following statement:

"The directors of the War Finance Corporation have under consideration applications from many public service corporations doing business in various sections of the country, for loans aggregating a large amount.

"The directors of the War Finance Corporation do not feel that they have any authority under the law to make loans except upon adequate security as required by the act, and they are convinced that the inability of a utility company to earn a sum at least sufficient to pay its fixed charges, taxes, maintenance and repairs, is conclusive evidence of the inadequacy of its own obligation as security. The directors of the corporation feel that the localities served by these various public utility enterprises should not expect the War Finance Corporation to make advances to any utility company whose statement shows that it is in actual need of increased revenue. It is a matter for the local authorities to determine whether or not an increase in rates sufficient to maintain the enterprise as a going concern should be granted. It is urged, therefore, that the proper authorities give prompt consideration to applications made by public utilities for permission to increase rates, in order that the directors of the War Finance Corporation may know when applications for loans are presented by public utility corporations whether or not they will be able to give adequate security."



Typical Views of Overhead Construction, New York Connecting Railroad



PORTAL AT SOUTHERN END OF LITTLE HELL GATE BRIDGE SHOWING CROSS BEAM AND SAFETY ANCHOR FOR TROLLEYS

11,000-Volt Overhead on the New York Connecting Railroad

Construction Is Complete and Tested Out—Everything Ready for Electric Operation When New Locomotives Arrive—Some Details of the Telephone and Telegraph Conduit Construction Are Included

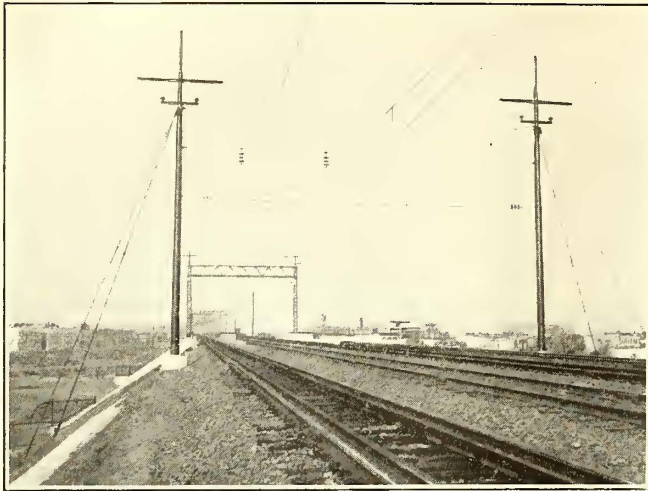
THE New York Connecting Railroad is a connecting link between the New Haven and Pennsylvania Railroad systems at New York City. While of not great length, this road is of unusual interest for several reasons. In the first place, it has made all-rail communication possible via New York between Boston and Philadelphia and points south. Formerly through trains between these points had to be ferried around Manhattan Island. A few passenger trains were interchanged between the two systems over a car ferry route of about 11 miles from Jersey City to the Harlem River. The freight interchange was by a still longer ferry, about 13 miles long, between Greenville and Oak Point. These float services were conducted by the New Haven Railroad, which will operate the New York Connecting Railroad.

The new electrification will make it possible to haul trains behind one electric locomotive, of the a.c.-d.c. type used for passenger service on the New Haven road, from New Haven to the Pennsylvania Station in New York City. Most of the distance will be under the 11,000-volt overhead of the New Haven Railroad, the remainder on the 600-volt third-rail line of the Pennsylvania Railroad. The freight tracks of the New York Connecting Railroad are not electrified except for pusher service up the bridge grades, and the freight service is conducted over the Long Island Railroad, under steam operation, to Bay Ridge, thus eliminating a large part

of the freight-car ferrying formerly involved in interchange between the two roads. A short ferry trip is necessary from Bay Ridge across New York Bay and will continue to be so.

The New York Connecting Railroad is interesting further because for its length it is an unusually expensive line. The total cost of the road itself was about \$30,000,000, and an additional expenditure of \$10,000,000 will be involved in the completed project including necessary improvements to the Long Island Railroad. Expensive fills and viaducts, including the famous Hell Gate bridges, have largely contributed to make the construction so costly.

At the meeting of the New York Railroad Club held on March 15, 1918, E. R. Hill of Gibbs & Hill, the designers and builders of the overhead and telephone and telegraph conduit system of this line, read a paper which contained much valuable information regarding the New York Connecting Railroad. This paper was abstracted in the issue of the *ELECTRIC RAILWAY JOURNAL* for March 23, 1918, page 556. He stated that the length of two-track passenger line, from Port Morris to Sunnyside Yard, which is now completely electrified, is 5 miles. The two-track freight line, from Port Morris to Bay Ridge, which is to be electrified later, is 20 miles long. The famous Hell Gate bridge has a length between abutments of 977 ft., and a length outside the towers of 1150 ft. Its clear height above mean



CROSS CATENARY OR WIRE CROSS-SPAN CONSTRUCTION, WITH GUYED TUBULAR POLES (FUTURE SIGNAL BRIDGE IN BACKGROUND)

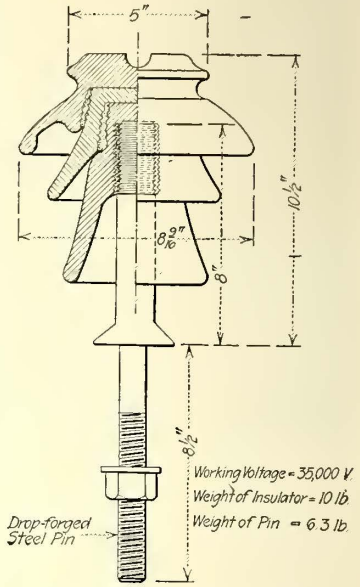
high water is 135 ft. Mr. Hill explained that the gradients involved in surmounting the Hell Gate bridge, and descending under the East and North Rivers imposed much heavier requirements upon the locomotives than are imposed by the comparatively level New Haven line. It has been necessary to provide locomotives having a one-hour rating of 2550-hp., 50 per cent greater than the capacity of the present heavy New Haven locomotives.

To supply power to these locomotives very substantial overhead construction has been erected. The nature of the line, with its numerous curves and viaducts, has made it necessary to design a number of special structures for the support of the overhead. Provision for expansion occurring in the viaduct trusses and girders, has also required careful consideration in the design. The way in which many of the problems were solved is indicated in the accompanying illustrations.

While in general the standard overhead construction of the New Haven road was followed, in details there

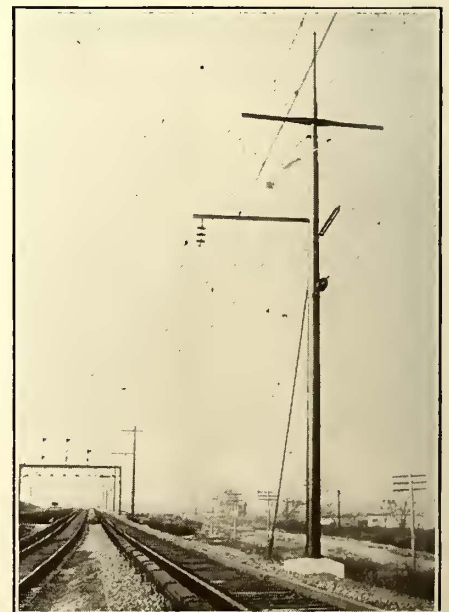
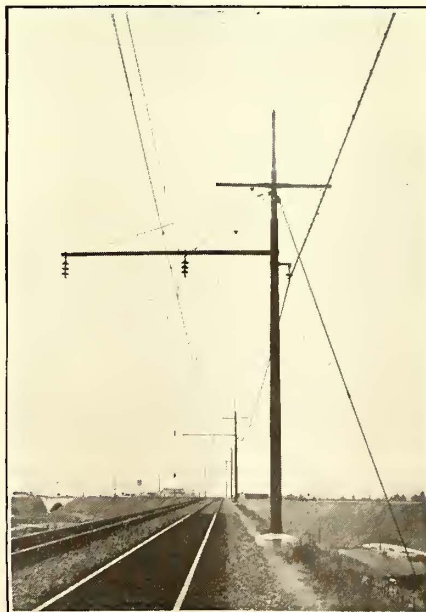
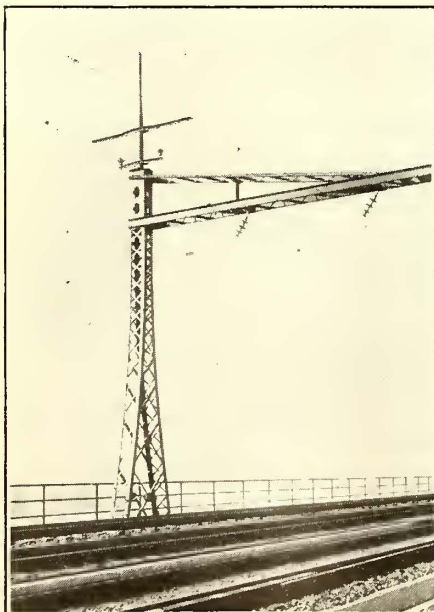
are a number of differences. Readers of this article will also notice a number of points of similarity between the overhead construction on the New York Connecting Railroad and that on the Chestnut Hill branch of the Pennsylvania Railroad described in the issue of the ELECTRIC RAILWAY JOURNAL for April 27, page 799.

Wherever on the line there is opportunity for guying, pole construction, either with cross span, or brackets, similar in design to those used on the Pennsylvania Railroad electrification at Philadelphia, is employed. The poles are set 6 ft. deep in concrete foundations about 3½ ft. square and extending a foot more or less below the bottom of the pole. The pole height from the rail surface to the point of attachment of the guys is about 35½ ft. The guys are 1½-in. rods attached to the pole by means of collars, provided with turnbuckles for adjustment, anchored firmly in reinforced concrete blocks set not less than 8 ft. below the ground surface, and protected from the anchor to a point above the ground by means of 3-in. boiler tube.

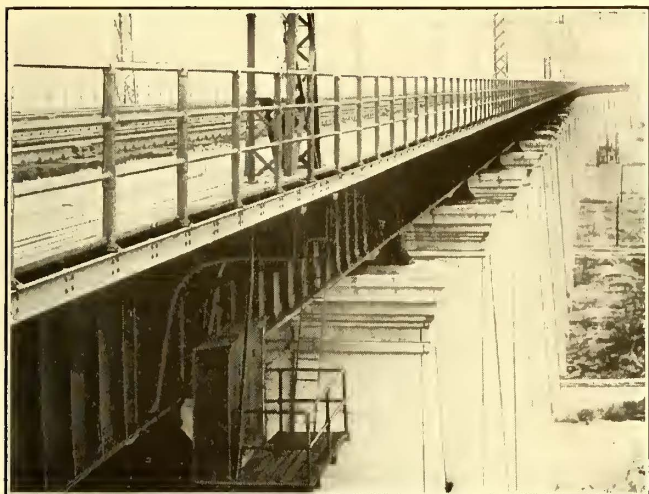


INSULATOR USED AT PRESENT ONLY FOR SIGNAL CIRCUITS

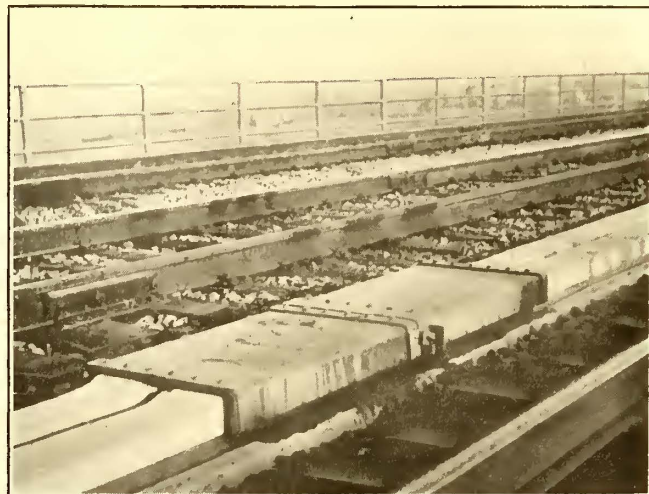
The pole top is occupied by the following attachments: Just above the guy rod collar or clamp is a short cross-arm made of two angle irons placed back to back, which carries the 2200-volt signal feeders on pin-type insulators. Above this is a longer crossarm, not yet occupied, which is designed to carry four high-voltage wires to



At Left, View of Latticed Post Used on Viaducts. In the Middle, Pole with Bracket for Two Tracks. At Right, Single-Bracket Catenary Support with Extra Heavy Pole on Which a Crossover Trolley and Messenger Are Dead-Ended
TYPICAL OVERHEAD CONSTRUCTION ON NEW YORK CONNECTING RAILROAD



SIGNAL RELAY BOX ON PIER BENEATH VIADUCT TROLLEY BRIDGE SUPPORTED ON CURVED BRACKETS



COVER OF IRON SPLICING CHAMBER FOR CONDUITS ON VIADUCT

be used as trolley feeders. Projecting from the top of the pole is a rod which carries at its upper end, a distance of 8 ft. above the upper crossarm, a ½-in. galvanized Siemens-Martin ground wire.

The signal wires, which are No. 00, carry power for the signal system. They are mounted on insulators of a type which is the New Haven standard for 11,000 volts although the initial voltage is much lower. In case of failure on one side of the line the current will be automatically thrown to the circuit on the other side.

The pole top described is standard along the line even on the four-track structural bridges which are fitted on each side with tubular bonnet poles cemented into the structural posts. The same crossarms, etc., are provided as on the other poles. On the passenger connection between Sunnyside Junction and Sunnyside Yard the signals are fed by a single 2200-volt rubber insulated cable, which is carried on a ½-in. Siemens-Martin steel cable outside the one and two-track bracket structures. A switch at Sunnyside Junction automatically throws this cable

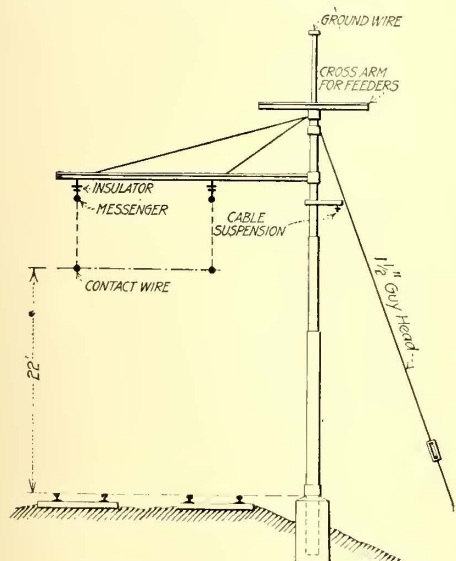
onto the power circuit that is energized. In some places these are supported from steel poles, but in general latticed poles well spread along the line of the track are employed. Where the feet of these latticed poles span expansion joints they are rigidly supported on but one side, the other foot resting upon a plate upon which it can slide, bolts in slotted holes being used to prevent overturning.

As these latticed poles are necessarily supported outside of the bridge girders their weight is carried on two substantial steel brackets each, riveted securely to the outside girders of the viaduct. A photograph has been reproduced to show this construction.

Within Hell Gate bridge the contact wires are supported by cross-wires attached to the steel members of the bridge. This makes a light, inconspicuous system not detracting from the appearance of the bridge. At either end of the Little Hell Gate bridge, towers are used to support a cross-beam for carrying the contact wires. One of these is also used as a safety anchor for these wires. On Bronx Kill bridge the contact wire insulators are attached directly to overhead steel members with safety anchors at each end.

CATENARY CONSTRUCTION FOLLOWS NEW HAVEN STANDARDS

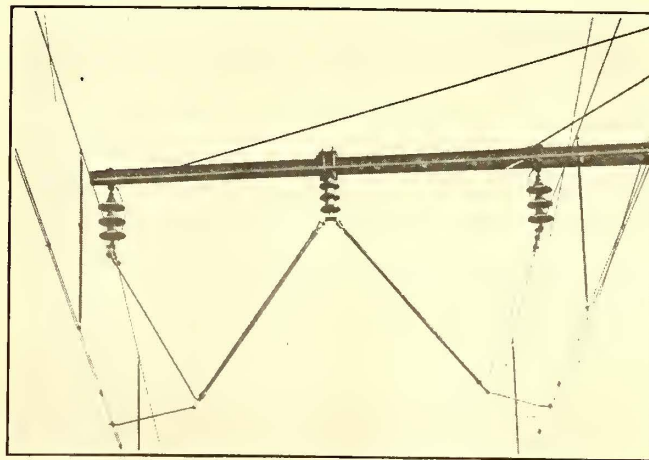
The main messenger is of 9/16-in. strand similar to that used on the Chestnut Hill electrification. From this the No. 00 copper grooved secondary messenger is sus-



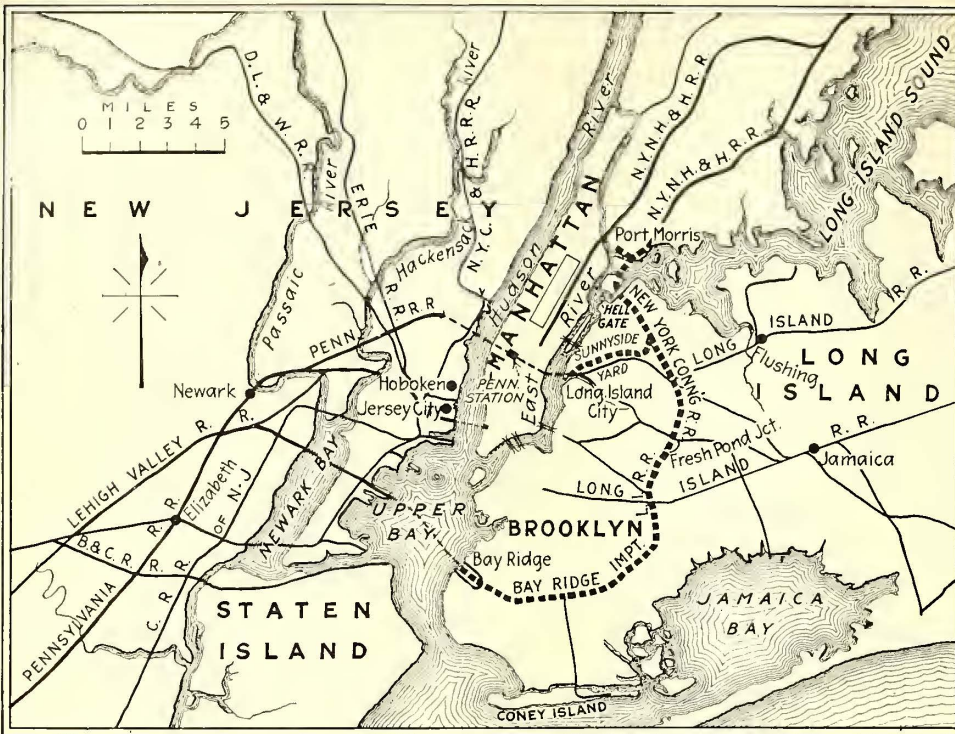
ELEVATION OF TWO-TRACK BRACKET SUSPENSION

onto the power circuit that is energized. In the standard bracket construction the angles are formed of angle or channel irons placed back to back. The single-track brackets are attached to the poles by a simple band, the weight being supported by one sag rod. In the longer brackets two sag rods are employed.

Where guying is not possible, channel-iron cross structures with sag braces, or in some cases latticed



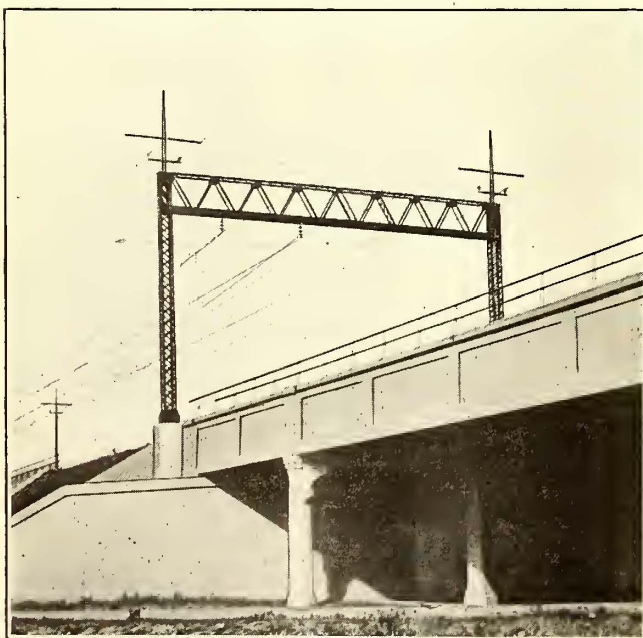
SAMPLE OF SPECIAL BRACKET CONSTRUCTION



MAP SHOWING NEW YORK CONNECTING RAILROAD AND CONNECTIONS

pended by 1/2-in. round hanger rods of steel, hot galvanized. On the upper end of the rod is a screw-clamp hook, and the lower end of the rod screws into a clamped casting on tangent construction, or is bolted through the clamp on curved construction.

A No. 000 grooved copper alloy contact wire is supported 1 3/4 in. below the secondary messenger, by means of clamps placed between, but not at the hangers, except on curves where the two wires are clamped together at every hanger. The spacing of the hangers on tangents is approximately 30 ft., with two bolted clamps between adjacent hangers. On curves the hangers are placed about 15 ft. apart.



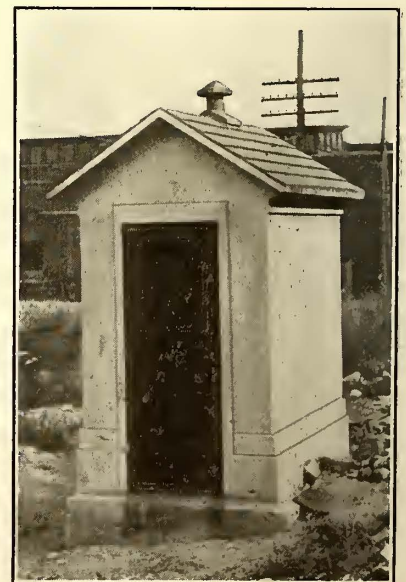
CATENARY SIGNAL BRIDGE AT SEVENTEENTH STREET AND WILSON AVENUE, ASTORIA

ilar to those used to support the contact wire. The contact wires themselves are insulated from each other by single 6-ft. wood-strain insulators.

No steadies or pull-offs are used on curves, the system floating naturally into an inclined position.

EXPANSION JOINTS A FEATURE OF THE CONDUIT SYSTEM

For the purpose of railroad communication a telegraph and telephone conduit line was built connecting with the Pennsylvania Railroad at Sunnyside Yard and the New Haven Railroad at East 132d Street between Harlem River and Port Morris, with connections into the railroad towers and to frequent telephones on the railroad. On the viaduct the conduit line consists of six fiber ducts protected by heavily reinforced concrete and provided with steel splicing chambers. In the fill south of the viaduct a six-way underground conduit line was constructed of vitrified clay ducts incased in concrete. The standard manhole is of pre-cast, oval, reinforced concrete type. Rectangular concrete manholes cast in place were installed at special locations and in the short twelve-duct section west of Woodside Avenue.



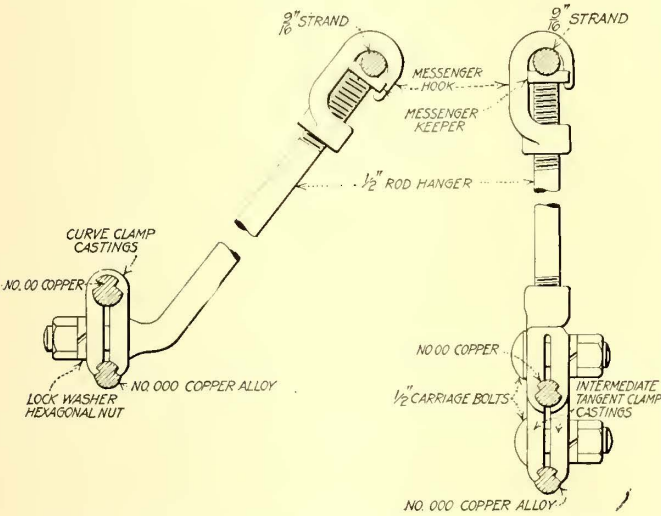
CONCRETE TEST HOUSE FOR TELEPHONE CABLES AT WOODSIDE AVENUE

The main messenger wire is insulated from the structures by three 10-in. free-swinging porcelain disks, similar to those used in the yards of the New Haven Railroad. This arrangement was adopted to secure the advantages of economy, insulation and ample strength and, most important of all, to provide insurance against interruptions of service due to the failure of any one insulator unit.

In anchoring and sectionalizing the catenary system three 6-ft. wood-strain insulators were used in multiple with an equalizing yoke. To prevent side swaying of the contact and secondary messenger wires on tangent track in very heavy winds, a steady brace or "steady," was installed. These steadies are insulated from the structures by strings of three porcelain insulators sim-

In general the conduit line is located between the tracks. On account of the many expansion joints made necessary by the presence of the numerous viaduct girders, this conduit construction is quite unusual. At these expansion joints the conduit is ended off square with several inches of space between adjacent ends. The gap is covered over with sheet iron bent to clamp the conduits tightly.

On the viaduct the telephone cable was simply offset to allow for expansion and contraction of the steel girder, which amounts to about $\frac{3}{4}$ in. On Hell Gate and Little Hell Gate bridges, however, the maximum ex-



CLAMP HOOKED HANGERS FOR USE ON CURVES AND TANGENTS

pansion in the bridge system will be about 10 in. and here the cable was terminated with potheads and flexible rubber-insulated cable used for connection between the potheads.

A forty-five-pair cable was installed along the passenger section. This is lead covered and consists of twelve pairs of No. 13-gage copper wire quaded, thirty-two pairs of No. 16-gage copper wire quaded, and one lead-incased test pair. The test house at East 132d Street is connected with the Harlem River Station by an aerial cable. South of Sunnyside Junction a cable has been run along the freight line to Bay Ridge, most of the way being carried overhead. The poles used are Southern pine impregnated by creosote by the vacuum process. This cable line connects with the Long Island Railroad system at its East River Long Island substation, a new twenty-four-pair cable connecting with Jamaica.

Among the manufacturers of material used on the New York Connecting Railroad electrification were the following:

Structural bridges	Virginia Bridge & Iron Company
Tubular poles	National Tube Company
Steel messenger and ground wire	American Steel & Wire Company
Copper auxiliary messengers	John A. Roebling's Sons Company
Copper alloy contact wire	Bridgeport Brass Company and Standard Underground Cable Company
Copper signal transmission wire	John A. Roebling's Sons Company
Bonds	American Steel & Wire Company
Insulators	Ohio Brass Company
Guy rods	American Iron & Steel Manufacturing Company
Catenary hangers and castings	Westinghouse Electric & Manufacturing Company
Signal power cable	Okonite Company
Vitrified clay ducts	Shawmut Manufacturing Company
Communication cable and equipment	Western Electric Company

Rates to Cover Bonuses

French Tramways Have Been Authorized Generally to Increase Rates for Sake of Allowances to Employees

ACCORDING to agreements published in the *Journal Officiel de la République Française* from October to February, 1918, French tramways have generally granted supplementary pay to employees. The journal mentioned has published in full the decrees issued by the Minister of Public Works and Transports, which have authorized the managements of tramways and interurban railways to increase the tariff for transportation of passengers or merchandise and accessory charges for handling and storage.

These increased rates have been allowed in most, if not all, cases, according to the publication quoted, because of increased wages or bonuses being paid owing to the prevailing high cost of living.

In requesting an authorization for increase in rates the following method of procedure is general. The concessionaire submits to the prefect of the municipality a statement showing the necessity and also the amount of supplementary allowances to be paid. This statement is accompanied with a request for authority to increase transportation charges. After an agreement has been reached and signed by the railroad management and the prefect, the proposition is submitted to the President of the Republic, who, if he approves, signs the proposal. The Minister of Public Works then issues a decree making the agreement effective and ordering it to be entered in the *Bulletin of Laws*.

The decree may be retroactive in so far as it relates to supplementary wage. In some cases these are made payable from a date several months before the proposal was even submitted to the prefect for consideration. As an example of this the agreement between the prefect of the Somme and the director of the Economic Society of Railways was signed on Sept. 15, 1917, and approved by the President on Oct. 30, 1917, but the war bonuses dated from Nov. 1, 1916.

The decrees in general cover the period of the war and one year subsequent to cessation of hostilities. It is stipulated in many agreements that a separate account must be kept both of additional receipts and of expenses resulting from these increases, and that such receipts are exempt from any concession tax only in so far as the receipts exceed the expense. In some cases it is specified that excess net receipts shall be used in road betterment. In other cases the agreement states that deficits under the new rates may be charged to that portion of the receipts due to the municipality as a concession tax.

The Urbana & Champaign Railway, Gas & Electric Company, included in the Illinois Traction System, estimates that only 0.42 per cent of an average man's income is spent for electric railway service, 1.08 per cent for gas, 1.03 for electric light and power service, 45 per cent for food, 16 per cent for rent and taxes, 14 per cent for amusement and charity, 12 per cent for clothing and 10.47 per cent for miscellaneous expenditures.

Helping to Win the War

Electric Railway Lines in Newport News, Va., Wilmington, N. C., and Charlotte, N. C., Are Doing Their Share Toward the Speeding Up of War Work at Cantonment, Training Ground and Shipyard

TO MEET the requirements of the United States in these momentous times, electric railways are utilizing as many resources as their restricted financial condition permits. The service rendered differs—it may be for the transportation of soldiers to and from camp; it may be for the hauling of freight; it may be for the carrying of shipyard or munitions workers. Whatever the service is, however, it is done with a patriotic willingness that makes the describing of it a double pleasure.

This journal has previously published items in regard to the war service of electric railways, but this week it is presenting a more extended description of the work being done in some of the Atlantic Coast cities, namely, Newport News, Va.; Wilmington, N. C., and Charlotte, N. C. Similar articles in regard to other cities in this country will appear in subsequent issues.

Accelerating Aviation and Shipbuilding at Newport News

One Line Built to Langley Field—Shipping Board Is Financing Another to Shipyards—New Power and Car Equipment

IN 1914, from the very beginning of the world war, Newport News, Va., became one of the most important points for shipments to the Allies, particularly of coal, horses, grain and meat. As the war began in August of 1914, the increase in exports during the following months of that year was not enough to show an imposing total; but the record for the following year is astounding. Thus, in 1914, the value of the exports totaled \$8,929,214; and in 1915, \$96,800,691 or nearly eleven times as much! It may be of some interest to add that during 1915 the exports included 170,000 horses and mules, 64,000,000 bushels of grain and 1,487,000 tons of coal.

It can readily be imagined that such increases as this have had a most stimulating effect on the local utility—the Newport News & Hampton Railway, Gas & Electric Company. Yet all this activity with the export business has become the smaller part of the enormous expansion on the famous lower peninsula of Virginia. To-day it is the work of the United States itself that is commanding the resources of the company.

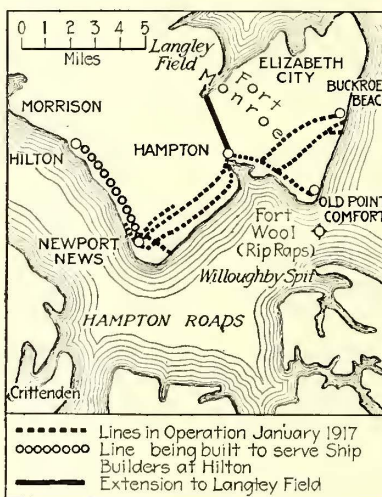
Between Jan. 1 and July 1, 1917, 235 dwellings had been put up in Newport News and vicinity because of the activities there, and some 300 more were under way. With the entry of the United States in the war, the total has gone to more than 1000. A part of the building program includes the erection of a model town named Hilton, with schools, churches and other public edifices complete. Furthermore, the Newport News Shipbuilding & Dry Dock Company secured immediate

expansion of rooming facilities by leasing Buckroe Beach Hotel from the utility to house 300 men.

At the Newport News shipyard alone there are now 9000 workers with an expected early total of 18,000. Since July, 1917, also, the daily shipyard travel has risen from 3200 to about 5000—an increase of 75 per cent. These men work in two eight-hour shifts.

A second shipbuilding activity there is that of the Newcomb Life Boat Company, which has contracts for \$3,000,000 of submarine chasers and wooden ships. It

is already employing 350 men and expects to need 3000. The great aviation field and proving ground at Langley Field and the 15,000-acre Field Artillery Drill Grounds now under way represent a considerable increase to the previous war-making facilities at this old-time center of naval and artillery activities. On the whole, then, travel is growing at an enormous rate, for the population has doubled (60,000



RAILWAY LINES OF NEWPORT NEWS & HAMPTON RAILWAY, GAS & ELECTRIC COMPANY

to 120,000) since the United States became a belligerent. For example, the riding in March, 1918, showed an increase of 84.88 per cent over that of March, 1917.

ONE EXTENSION FOR AVIATION SERVICE, ANOTHER FOR EMERGENCY FLEET CORPORATION

To meet the requirements of the government, the company in April, 1917, began the construction of a 3.1 mile line to Langley Field through an associated company called the Hampton & Langley Field Railway. This line was completed in August, 1917. The passenger business is not of primary importance here, the real service of the line being the hauling of freight from an interchange track connection with the Chesapeake & Ohio Railway at Hampton. Twenty carloads of freight are being hauled each way daily with an electric locomotive. The all-day headway for passenger service is only forty minutes, but double-headers of five cars each are run twice a day for the workers at the field.

Through the prompt action of A. Merritt Taylor, manager Passenger Transportation Service Section of the Emergency Fleet Corporation, funds have been advanced to the company for a 3-mile single-track line from the Newport News city line to the new community of Hilton, previously named. In connection with this

extension the company will use eighteen cars now on order and give, probably, a fifteen-minute service throughout the day.

Other work of the way department includes a $\frac{1}{4}$ -mile extension into Camp Stuart from the Twenty-third Street line, Newport News, twenty-car storage track loops at Newport News for the shipbuilding service and a loop on Twenty-third Street at the Chesapeake & Ohio Railway connection.

EIGHTEEN NEW CARS, TEN LEASED CARS AND MUCH REBUILDING

As of April 1, 1918, the company had forty-nine motor cars and thirty-four trailers on hand. To these it has added six cars leased from the New York & North Shore Traction Company and from the Norfolk Southern Company, and it has eighteen Brill semi-convertible cars on order. Between 1914 and 1918, it had bought four center-entrance cars, rebuilt another four cars to center-entrance type, rebuilt a number of open cars to all-year type, bought six Brill semi-convertible cars, purchased nine cars from Cleveland, three of which had motors and six of which were equipped with motors by stripping open cars which are now run as trailers, etc. Without going into more details, it is plain that the company had to show war-time ingenuity to get the most equipment for the least new investment.

To keep the enlarged car park in shape, 100 per cent increase of capacity is being secured by adding to one side of the present shop a 41-ft. x 160-ft. section for blacksmith and general inspection and to the other side a 35-ft. x 116 ft. section for painting and carpentry. The present paint shop becomes the new storeroom. The only new tools installed are a bolt threader and a South Bend lathe.

NEW POWER EQUIPMENT AND 6 $\frac{1}{2}$ -MILE TRANSMISSION LINE

The most important work in the power department is the erection of a 6 $\frac{1}{2}$ -mile, 10,000-volt aluminum transmission line from Hampton to the shipyard at Newport News. For these and other needs, three 1000-kva. 3450/10,000-volt transformers were ordered for the power house.

At the Hampton plant, also, the company has just added three 550-hp. B. & W. boilers. In 1917, it installed there a 4500-kw. Curtis turbine, raising the total output to 10,300 kw.

A 500-kw. general electric rotary has also been required for the Newport News substation.

FREIGHT AND ICE FACILITIES—HOUSING FOR PLATFORM MEN

The great congestion of both car and vehicular traffic at Newport News has made it necessary to abandon the store-door delivery heretofore made by the freight department. In consequence, it was necessary to erect a brick terminal at Newport News. The main building is 30 ft. x 85 ft., the office 15 ft. x 16 ft. and the wooden addition, 30 ft. x 50 ft. This business is chiefly the transfer of small lots from the Baltimore steamers at Old Point Comfort to customers at Newport News.

This company is one of the few public utilities doing an ice business. It has increased its storage capacity to 4900 tons.

Not the least of the company's troubles is to hold its men, because of both the wages and the housing conditions. The former have been practically doubled since war days, while the latter have been alleviated by building a forty-men dormitory at Hampton.

IN DOLLARS AND CENTS

The effect of the war at Newport News on the finances of the company may be summarized as follows: Gross earnings in 1913, \$794,176; in 1914, \$813,861; in 1915, \$916,172; in 1916, \$1,013,711; in 1917, \$1,357,308. No depreciation fund was set aside until 1915, when the amount was \$25,080; in 1916, \$71,209 and in 1917, \$106,619. Despite this the net has increased as follows: In 1913, \$59,393; in 1914, \$73,212; in 1915, \$104,884; in 1916, \$117,224; in 1917, \$180,665. It is difficult to say what 1918 will show owing to the great increase in cost of labor and material. It may be added that of the \$1,357,308 gross in 1917, \$541,228 came from the railway; and that the railway ratio of operating to gross was 55.5 per cent.

Of course, it is not to be expected that the company's business will be so large after the war; but much of the present activity will be permanent because of the manifest advantages for manufacturing of the Newport News-Hampton Roads country and the permanent ship and government work. The company very sensibly is using what it has to the limit instead of making investments that would prove hard to carry after the war.

Carrying Soldiers to Carolina Camp Two Double-Track Extensions 1 $\frac{1}{4}$ Miles Each With Extra Cars Cost \$200,000 for \$500 Daily Maximum Gross with 5-Cent Fare

ONE of the great troop encampments of the South is Camp Greene, which is located about 3 miles west of Independence Square, the center of Charlotte, N. C. To serve this encampment properly, the Southern Public Utilities Company has constructed two double-track loop-terminal lines each 1 $\frac{1}{4}$ miles long. One of these is a spur from the main line of the associated Piedmont Northern interurban; the other, an offshoot of the Lakewood Park line. The more distant terminus is 4 miles from Independence Square.

The morning headway on the long line is twenty minutes and on the short line, fifteen minutes; the afternoon and evening headways on both are five minutes. Trips to town are popular with the troops, for this is one of the few camps from which a city can be reached for 5 cents. At the same time travel varies greatly as the number of soldiers ranges from 10,000 to 50,000.

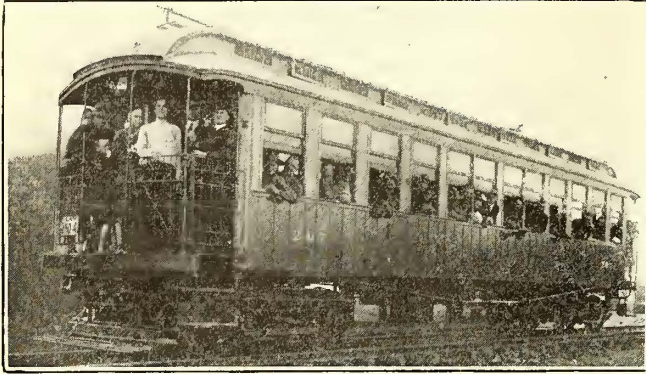
The riding is not in proportion to these figures, however, for furloughs appear to grow scarcer when the camp is crowded. In general, Saturdays and Sundays are the heavy days. Early in May, the week-end travel, which included some civilians, was about \$500 a day, or 10,000 fares.

To supply quickly and at least cost the need for rolling stock, the company has supplemented its regular double-track vestibuled cars by eight elevated railway cars. These former trailers were fitted with two 65 hp. motors and are run single-ended. They seat sixty and

can carry 150 passengers. Their total cost was \$3,500 each.

The company also bought two double-truck cars from Vicksburg, Miss., and inclosed four of its open cars to which it added air brakes.

These developments for a transient but patriotic



SOUTHERN PUBLIC UTILITIES CAR TRANSPORTING TROOPS AND CIVILIANS

purpose have cost the company about \$200,000. If funds were available, the company could use a 1000-kw. rotary converter to advantage as the present equipment of two 500-kw. and two 750-kw. machines allows no reserves for contingencies.

Wilmington Helps Shipbuilding

In North Carolina City Shipyards Will Be Served by Extensions—Multiple Unit Cars and Prepayment Areas Considered

LIKE its northern namesake in Delaware, Wilmington, N. C., is an excellent site for shipbuilding. It is now the home of two large projects in that field, one concrete and one steel. The concrete plant, which is already at work, bears the name Liberty Shipbuilding Company. It is located in the southern part of Wilmington with some 300 men at work now and 1000 in the near future.

At a distance of about 1 mile further south along the Cape Fear River is the plant of the Carolina Shipbuilding Corporation, a subsidiary of the Fuller Construction Company, the well-known New York contractor. This company has a contract for twelve 9600-ton steel ships. When building gets under way it will employ 3000 men.

NEGOTIATIONS FOR 3¼ MILES OF NEW TRACK

The Tidewater Power Company, by building 3¼ miles of new single track, would be able to give a double-track service although the old and new tracks would not be adjacent to each other. At this writing negotiations are on with the Emergency Fleet Corporation concerning the financing of this work.

So far as rolling stock is concerned the company is fortunate in being able to use for this twice-a-day service the eighteen large double-truck cars that have hitherto been used chiefly for Saturday afternoon and holiday travel to Wrightsville Beach. These cars have Westinghouse HL multiple-unit control and can therefore be operated in trains as desired. They could be supplemented by some of the company's thirty-two-pas-

senger single-truck city cars. The latter in turn would be replaced by one-man safety cars which the company purposes using. In fact, one of the present cars is being equipped with the automatic devices that are used in one-man operation.

To use its rolling stock more efficiently, the railway is planning a prepayment area at the steel shipyard, and the Liberty Shipbuilding Company has already agreed to consider staggering its working hours. Rates of fare have not yet been fixed.

While the Wilmington company is in no immediate need of cars it is looking ahead to be prepared for the maximum. Probably the purchase of some large second-hand cars with multiple-unit control will be favored. Incidentally, it may be remarked that as the plants are located on the Cape Fear River, boat service by other interests is not out of the question.

HOUSING MOVEMENT IN WILMINGTON

Proof of the lively interest which Wilmington is taking in the shipbuilding program is presented in a citizens' co-operative movement to pledge \$1,000,000 for the building of homes for the shipworkers. Apparently no one locality is to be developed, as at a public meeting held on May 9 lots from various parts of the city were offered for building. In several instances the speakers said building now would be a personal hardship but they would be glad to do it for the sake of winning the war. All the building and loan associations of the city also are urging their members to subscribe funds. One project is to secure twenty-five subscriptions of \$25,000 each with the rest coming in amounts as low as \$10. Wilmington evidently is not going to ask the Emergency Fleet Corporation to do it all!

85,000 Words at One Hearing

President Brush Performs Remarkable Feat at Recent Hearing on Necessity of Financial Relief of Boston Elevated

MATTHEW C. BRUSH, president Boston Elevated Railway, recently appeared before the joint committee on street railways and metropolitan affairs of the Massachusetts Legislature and presented a statement that will undoubtedly hold the record in important respects for a long time to come. Beginning at 11 a.m., he talked during the morning, afternoon and evening with two intermissions for meals, at the rate of more than 225 words a minute, until nearly 10.30 p.m. The report of his address and answers to questions fills a total of 236 typewritten pages and contains about 85,000 words.

So closely did Mr. Brush hold the attention of the members of the committee that no one left the room or gave the slightest attention to any other matter than the remarks of the speaker at any one of the sessions. During the entire hearing not a question was asked to which Mr. Brush was not ready to make a quick, complete and satisfactory reply. So obviously frank were the answers and so obviously helpful was the intent, that before the hearing had progressed to great lengths, the entire attitude of all concerned was that of mutual helpfulness in a common cause.

War Problems Before Oklahoma Association

Recent Meeting Marked by Patriotic Consideration of Current Questions—Value of Public-Relations Work Is Emphasized

THE seventh annual convention of the Oklahoma Gas, Electric & Street Railway Association, held in Oklahoma City on April 22-24, was marked by an attitude of unusual seriousness. The members seemed to realize that present conditions call for co-operative effort, for patriotic willingness to share their portion of the war burdens and for an improvement in methods of dealing with the public.

Numerous addresses were made, and below are published abstracts of those most closely connected with the electric railway industry. The names of the new officers of the association follow: J. F. Owens, vice-president and general manager Oklahoma Gas & Electric Company, president; C. S. Thompson, general manager Shawnee Gas & Electric Company, first vice-president; J. W. Shartel, vice-president and general manager Oklahoma Railway, vice-president, and L. W. W. Morrow, University of Oklahoma, secretary-treasurer.

Relation Between Public and Utility

Public Favor Is Most Valuable Asset of Company—Service Must Be Paid For by Patrons—Changed Conditions Should Mean Altered Rates

BY A. L. MITCHELL

Gas and Electric Engineer, Corporation Commission of Oklahoma

THE Oklahoma commission has gone far during the last twelve months in an effort to harmonize relations between the public and the utilities of the State. In view of the unusual and trying conditions resulting from the war, it has been necessary to restrict service in some instances, to deny requests for extensions or expansion in others and to impose rate advances in still others. The public undoubtedly has been inconvenienced by orders of this character, but it appears that the need has been understood, as there has been no protest.

The fundamental rule governing the relation between the public and the utility, as understood by the Oklahoma commission, was referred to in a recent case involving increased charges for electric railway transportation. In its opinion the commission said:

"The Corporation Commission of Oklahoma conceives it to be its duty to see that the public secures, as nearly as is economically possible, that for which it pays. The commission must also see that the public pays for that which it receives. Where conditions from time to time are making changes in rates necessary, it must prescribe and enforce such changes whether revision downward or revision upward be necessary.

"The commission must take into consideration, as has been done in certain recent cases, the fact that this is an abnormal time; that the individual must pay more for what he purchases than in normal times, and that the public utility must do the same. It follows 'as the night the day' that if the utility must pay more for what it buys, it must receive more for what it sells."

The most valuable asset that any public utility can

have is the favor of the public served. The truth of this statement is realized by most utilities at this time. Some are more successful than others in applying their realization of this fact in practice. One of the compensations in the war emergency is that the American people are forgetting supposed differences among themselves in their unanimous hostility toward the nation's enemy. With the public utilities and the public making every effort to be useful in the winning of the war, neither has time to waste in magnifying the importance of a grievance toward the other. It is likely that both will learn that they can work best by coordinating their efforts in the building up of the communities in whose best success both can expect to share.

Instilling the Public-Relations Idea

Task of Utilities Is to Get the Public to Make an Intelligent Choice Between Decreased Service and Higher Rates

BY L. W. W. MORROW

Director School of Electrical Engineering, University of Oklahoma

THE task of the utility is to remove the impression that the utilities and the public are working for opposite results—the utilities to squeeze every cent they can from the public; the public to get every cent they can from the utility. The true idea of public relations must be instilled—the utilities and the public are partners; the interests of the employer, employee and the public are one and the same. Co-operation is the keynote to the welfare of each.

It does no good to appeal to the sympathy of the average citizen—it simply shows ignorance of human nature on the part of the utility management. The utility must approach the public from the standpoint of selfishness and self-interest. It must show the public that the utility's interests are the public's interests, and that a consideration of utility conditions will mean money in the pocket of every user of the utility's service.

TEARING UP TRACKS WILL NOT SOLVE THE PROBLEM

How shall the utility present the facts to the public so as to get the public to consider them? The utility, from the public's standpoint, is at present an interested party, and any statements or figures of the utility are questioned on sight. Some argue that the only method of getting the public to consider the utility is for the utility to decrease service. Tear up a few street-car lines, and refuse a few extensions, and the public is placed in a position of the aggressor and not the utility. Then the facts of the utility's condition will reach the audience desired and the public will acquiesce in the principle that service should be paid for on a reasonable basis.

This method will work as a temporary expedient, but it is wrong as a working policy, because of the psychological fact that the public never welcomes proof that it

is wrong. Even though convinced of the justness of the utility's act, the public would consider itself ill-treated in that the utility made no effort to show its condition before discontinuing service. The public is accustomed to have the utilities take the steps necessary to give it adequate service and does not relish the work necessary to get service through its own action. The public also feels worse in that it is practically forced to grant a rate increase.

"MORE-THAN-NECESSARY SERVICE" THE SLOGAN

Extension of service and more-than-necessary service are the watchwords of successful utility operation. The task of the utilities is to show the public that present conditions mean decreased service or advance in rates, and to get the public to accept voluntarily the increase in rates upon decision of their representatives.

The gist of every publicity argument should be that unless rates are advanced, service will be decreased. The utility must show:

1. That it is not getting a fair return on the actual capital invested.
2. That its financial condition is not temporary with relief in sight, but is in fact increasing in seriousness with the lapse of time.
3. That the increase is necessary in order to furnish adequate service of the kind the public requires.
4. That the increase desired is only reasonable and just and that the company's motive in asking the increase is only the application of fair dealing to present conditions.

The public must be shown the same things a commission is shown, but it must be shown these things in a simple and direct manner—no lengthy treatise on going value, depreciation, reproduction new, etc., appeals to the public. Simply show that operating expenses are so much, operating revenues are another sum, and the difference is inadequate to furnish the service desired by the public.

PUT PERSONALITY INTO CAMPAIGNS

The utility publicity man must have several essential characteristics. He must be able to marshal his facts and present them in a telling and effective manner. He must believe in his own case enthusiastically and must be perfectly frank with his audience. He must be the personality of his company—no one cares about the hardships of Blank Electric Company, but John Jones is a definite personality and his views and opinions are quoted and considered. The personality of the manager of a utility solves many vexatious problems in public relationship.

There are many methods for obtaining publicity—the newspapers, newspaper advertising, circulation, posters and street cars, addresses before civic bodies, personal relationship between the employees and the public are all legitimate means. The newspaper is the chief agent as it reaches the maximum number of people. The publicity of the individual plant must be handled locally—no amount of generalization will be read by the local citizenship. The manager of the local utility is the one person to handle the public. A central bureau can compile his facts and arrange his material, but the manager's personal touch is essential in getting these facts across to his public.

A lecture bureau is a great help in presenting matters of a general nature to civic bodies, but every question that is in dispute should be personally presented by the manager, even though in many cases he is far from being a fluent speaker or logical floor thinker. The importation of a high-grade man by the utility to handle local disputes is poor policy, because it strikes the local people as a plan to talk them out of their side of the case by means of hiring an able lawyer. Instinctively, the local people take an antagonistic mood. The manager, however, lives in the community and is one of the citizens, and on a common basis with the local people from their point of view. Outside help can marshal the facts for the manager and obtain his material, but it should not attempt to intervene directly in local disputes.

How Should Utilities Be Taxed?

Same Valuation Should Be Used in Taxation as in Rate-Making—State Assessment Board is Best

BY PROF. F. F. BLACHLY
University of Oklahoma

THERE are three theories of equality of taxation as applied to utilities: (1) Utilities should not be taxed at all. (2) Utilities should be taxed more than other businesses. (3) Utilities should be taxed equally with other businesses.

The last theory probably has more advocates than either of the other two. All admit that it is difficult to obtain perfection in trying to establish a basis of equality but that such an attempt should be made.

Real equality can only be obtained by classifying property according to special conditions and circumstances. It is much easier to state this general principle than it is to apply it to concrete cases.

The taxation of utilities at their fair market value is the method used in Oklahoma in addition to the gross revenue tax. Thus, to speak theoretically, the property of public service corporations is assessed in the same manner as other property with the exception that the assessing board is different. Were tangible property alone to be considered and were the tangible property of a public service corporation not very different than that of a private corporation, this method might produce fair results. But it is the intangible assets of public utilities which cause the difficulties.

It is left to the discretion of the board to determine the assessment on these extremely elusive values. Since the basis is not the actual property itself, but this property in its relationships with the intangible property, the board has no guiding star in determining what the assessment shall be. The result is that, in Oklahoma at least, there seems to be no stable basis for determining value. Several factors undoubtedly are taken into account, such as capital stock, bonded indebtedness, total revenue, expenses, interest and dividends. I have been unable in any concrete instance to determine just what was the basis for fixing the assessment.

RATE VALUATION SHOULD BE USED

It would seem evident that the same valuation should be used as the basis for taxation as is used in rate making. If franchises, good-will and going value are considered as a proper basis for the determination of rates,

they should also be considered when it comes to taxation. If, however, franchises, etc., are not considered in determining rates, certainly they should not be so considered when determining the value of the property for the purpose of taxation.

Particularly in undeveloped or new regions, I do not believe that it is either expedient or possible to remove all speculative value from a public utility and still have it privately owned. Capital simply will not invest in such enterprises. The natural result of trying so to regulate utilities must ultimately bring about government ownership.

Evidently all public utilities should be assessed by a state authority, as opposed to local authorities, for many utilities are not local in nature and even where they are it is almost impossible to secure assessors with a sufficient grasp of the problem to perform their functions properly. The assessing board must have large powers of determining value and it should be made as free as possible from political control. Perhaps the best way to secure this end is to have members appointed for a long term if not for life. The members should be experts in law, accounting, economics and business management. While much of this training can be secured through formal education, much of it must come through the handling of large affairs.

In order to carry out the principle previously stated, that the same base should be used in determining taxes as is used in determining rates, there should evidently be a close relationship between the rate-regulating body and the assessing body. I am not at all sure, however, that the rate-fixing body and the tax-assessing body should not be the same. Many advocate a regular tax commission which should assess all property in the State, including utilities. The only difficulty of such a scheme might be that it would either have to duplicate to a large extent the work of valuation now done by the corporation commission in determining valuations, thus requiring a large and expensive staff, or else the tax commission would have to adopt the value of utilities certified to it by the corporation commission.

War Needs of Electric Railways

Decisive Increase in Revenues Is Needed to Enable Railways to Stand Present Strain

BY G. B. TREAT

Assistant Manager Oklahoma (Okla.) Railway

THE one thing which the public lost sight of, and which should be the key to future action, is the fact that on a pre-war basis the electric railway business as a whole was not attractive to capital. The present distress of the utility is not entirely a war result, but it is the culmination of attempting to carry the burdens of previous years without adequate revenue.

The continued efforts to reduce operating expenses during the last few years have always been made at the expense of the property. Renewals and replacements which should have been made were passed by, so that at the opening of the war the utilities were not in shape to stand the added burden.

If all the relief thus far asked by the utilities were granted, the returns would still be wholly inadequate to meet the present-day demands. Requests for added revenues have been limited by the fear that an adequate

return would call for such a large increase as to raise a storm of protest which would ruin all chances of gaining any immediate aid. Had the relief asked for now been applied for six years ago, properties would have been in shape to stand the present strain.

Aid necessary now is not the nominal increase asked for, but a decisive increase, which would aggregate probably not less than 50 per cent for all the electric railways over the country. Failure to receive this will react against the public interest in a way over which the companies will have no control.

Missourians Keenly Alive to Rate Needs

Majority of Addresses at St. Joseph Convention Discuss Increasing Costs—Concerted Effort to Educate Public Is Urged

THAT sweeping increases in rates are necessary to afford relief to public utilities in Missouri was the consensus of opinion at the convention of the State Association of Public Utilities in St. Joseph, Mo., on May 17 and 18. The utility operators have ceased for the time being to discuss detailed problems of operation and are concentrating their attention upon the fundamental question of securing adequate net income.

The convention was opened by addresses from two Missouri mayors. Mayor J. C. Whitsell of St. Joseph expressed willingness to aid the local utilities in educating the public to the fact that net earnings are only a small percentage of the receipts. Mayor H. W. Kiel of St. Louis stated that changing conditions are making the public see the value of utility service. He expressed the belief that higher rates would have to be paid.

In the absence of the president, Bruce Cameron, superintendent of transportation United Railways of St. Louis, his address was read by Secretary F. D. Beardslee. Mr. Cameron dwelt at length on the St. Louis electric railway situation. Last February the employees demanded an increase in wages, but the money to pay it could not be secured under the rates in effect. Application was made for an increased fare, but the city of St. Louis opposed this. The commission, however, has now granted the increase, and the workmen have secured increased wages. Whether the city of St. Louis will attempt to fight still further in the courts and take the responsibility of bringing on a strike remains to be seen. Mr. Cameron favored the skip stop as a conservation measure both for saving coal and for saving time. He predicted that the prices of labor and material would reach higher levels and that high prices would continue for a long time, even after the war is ended. He recommended that changes be made to take these predictions into account, one suggestion being for the coinage of a 7½-cent piece.

J. S. Tritle, manager of the St. Louis office of the Westinghouse Electric & Manufacturing Company, in a paper on "How the Manufacturer Is Meeting the Problems Created by War," presented data on the increased business which his company is doing. On June 30, 1914, the company employed 11,702 men, and on Feb. 28, 1918, it had 36,534. When war broke out

on Aug. 1, 1914, the unfilled orders amounted to \$8,000,000; on April 1, 1918, they totaled \$153,000,000, exclusive of the gun business of the New England Westinghouse Company.

NATIONAL WELFARE DEMANDS UTILITY PRESERVATION

Among the other addresses of interest to electric railways was one by Col. Philip J. Kealy, president Kansas City Railways, on "The National Movement for Increased Revenue." This sounded the keynote of the convention in the following words:

"We are here to work out plans not to reduce operating costs or to effect small economies, but to preserve the very existence of the industry itself. One of the principal things we now have to do is to effect that change in our own psychological attitude that we must later effect on the general public. We must get away from our local viewpoint with all its prejudices and face our problem as a national emergency. We must, in our own minds and in the minds of the public we serve, stamp our companies with a national character and have them considered as a vital and essential part of our war preparations."

The remainder of the paper was a résumé of what has been accomplished nationally along this line and what should still be done. In conclusion Colonel Kealy said:

"The situation is in the last analysis a final test of state regulation. Unless regulation is elastic enough to meet the exigencies of an abnormal situation and to preserve and make possible the service of the companies, it has failed and some other method must be adopted to handle the situation. The commissions face a grave responsibility. In this connection our efforts can be of some material assistance. The commissions have no way of presenting the facts to the people from whom they derive their authority. We must do everything possible to see that the public is thoroughly informed of the necessities of the situation."

THE PUBLIC MUST BE TOLD

The discussion of Colonel Kealy's remarks brought out the point that this work of public education must be done by newspaper advertising, by personal explanation to influential citizens and by all other available means of disseminating information. The question of how to answer the argument that a utility should not break rate contracts, even though it is losing money, also came up. Several good answers were suggested. One form of explanation was that a utility contract is a long-term agreement based on normal times, and that in an abnormal period it is better for both parties to readjust the contract than to have unprofitable and unsatisfactory service.

The address by H. Wurdack of St. Louis on "The Effect of War Upon Utilities" was a discussion of the increased burdens of operation. The speaker concluded that: (1) Regulation will only be tolerated by the American people as long as it seems to work to their advantage; (2) laws and limitations made in peace times to govern peace conditions are in many cases found to be wholly inadequate, improper and inoperative in a war emergency; and (3) commissions, local authorities and communities must allow a liberal

and speedy remedy if the total destruction of utilities is to be averted. He also suggested as remedies that fares should be increased sufficiently to reimburse companies for losses already sustained and to cover further increases in costs, that companies should be relieved from paving, tax and other similar burdens and that some means should be provided for financing necessary work at a reasonable rate.

Another who took part in the convention program was J. A. Whitlow, engineer with the Missouri Public Service Commission. Mr. Whitlow declared that the commission, before making any decisions, had been requiring extensive publicity regarding the details of all rate increases in order to maintain favorable public relations for the companies.

As a fitting culmination to the discussion on higher revenues, the resolutions committee submitted a statement which the association, acting as a committee of the whole, will later present to the Missouri Public Service Commission. The purport of the resolution is that all public utilities are entitled to increases in rates sufficient to cover increased costs, and that new rate schedules should not be suspended by the commission until an adverse showing had been made to justify suspension. Furthermore, the resolution declared that all franchise requirements not essential to the maintenance of service should be discontinued for the duration of the war.

COAL PROBLEM WILL BE MORE SERIOUS

Governor Wallace Crossley, fuel administrator for Missouri, predicted more serious coal troubles this winter than prevailed last winter. He expressed the opinion that the activities of the national fuel and transportation departments should be co-ordinated. In the subsequent discussion many operators testified that the grade of coal now being delivered from mines is twice as high in ash as formerly, and that a saving of 30 per cent in coal cars could be secured by compelling mines to ship clean coal. A committee is to be appointed to supply Governor Crossley with accurate data regarding the inferior coal service now being rendered. M. F. Henry, secretary of the Missouri fuel administration, stated that higher freight rates on coal, amounting to from 15 cents to 50 cents a ton, should probably be expected within six weeks.

The officers elected for the ensuing year are: President, J. H. Van Brunt, St. Joseph; first vice-president, J. M. Scott, Kansas City; second vice-president, L. P. Andrews, Sedalia; third vice-president, H. Spoehrer, St. Louis, and secretary-treasurer, F. D. Beardslee, St. Louis. The executive committee is P. J. Kealy, Kansas City, and B. C. Adams, Joplin; and the public affairs committee is V. L. Elbert, St. Joseph; J. F. Porter, Kansas City; Bruce Cameron, St. Louis, and E. C. Deal, Springfield.

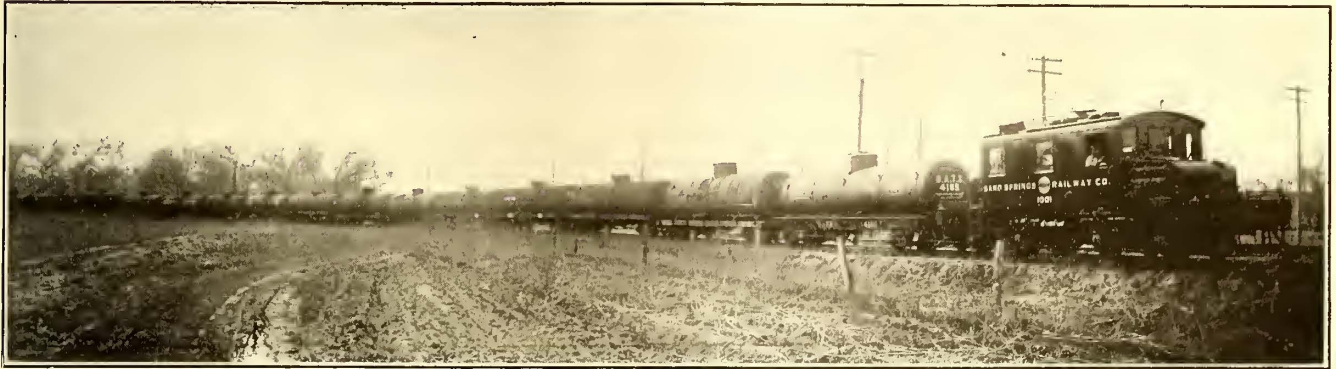
The results of the first Thrift Stamp Day were so satisfactory that the National War Savings Committee of Greater New York has decided to set aside hereafter every first day of each month as Thrift Stamp Day, and all business houses have been asked to co-operate and make a special drive to boost the sales of Thrift and War Savings Stamps on those days.

Freight Motive Power Equipment

Present Power House and Substation Equipment Is Sufficient if Freight Haulage Is Confined to Off-Peak Hours

By G. M. WOODS

General Engineer, Railway Department, Westinghouse Electric & Manufacturing Company



SAND SPRINGS RAILWAY OIL TANK TRAIN HAULED BY A 50-TON LOCOMOTIVE

MANY electric railroads appreciate the possibility of increasing their revenue by freight train operation but do not engage in it because they assume that increased investment for substation and feeder capacity will be necessary to handle the power drafts. A properly designed freight locomotive capable of hauling a 250-ton train on a 4 per cent grade or a 1500-ton train on the level will produce no higher current peaks than a high-speed limited passenger car on the same line. Freight service is operated by many roads during the night. It is well that these off-peak hours should be so used instead of permitting the earning power to drop to zero for four or five hours every night. In fact, freight service need not add a single kilowatt to the daylight or evening peaks. It is inherently difficult to obtain a high load factor on most electric railroads and the peak load, rather than the continuous load, determines the substation and feeder capacity.

In Fig. 1 the current taken by a 50-ton interurban car equipped with four 125-hp. motors, operating on grades up to 4 per cent, is compared with that required by a 45-ton low-speed locomotive hauling a 240-ton train up the same grades. The balancing speed, balancing current and accelerating current for 1½ m.p.h.s. acceleration of the 50-ton passenger car are shown by curves A, A-1 and A-2 respectively. The balancing speed, balancing current and accelerating current for 0.1 m.p.h.s. acceleration of the 45-ton locomotive hauling the 240-ton train are shown by B, B-1 and B-2 respectively. Attention is

called to the fact that the passenger car requires a much higher starting current than the 285-ton freight train although in this particular case, on the heavier grades, the balancing current of the locomotive with trailing load is slightly higher than that of the passenger train.

LOW-SPEED LOCOMOTIVE GIVES HIGH TORQUE PER AMPERE

Freight motive power must be able to exert very high drawbar pull as a primary requisite. Speed usually is secondary. In developing the high drawbar pull, it is essential that the current required should be kept to a minimum. Therefore, the chief advantage of a low-speed locomotive motor equipment is that a very high torque or turning effort is developed per ampere, permitting the locomotive to haul heavy tonnage with relatively low drafts of power.

Low-speed motive power equipment not only reduces the power peaks, but also reduces the total power required to haul a specified weight of train over a given line. This is true because when operating at low speed the frictional and wind resistance of the train is lower, the line losses are lower and less energy is dissipated in braking. Furthermore, a locomotive in freight service spends much of its time on sidings and in switching cars. The individual movements are usually short and must be made at low speeds with the result that the high-speed locomotive is at a disadvantage from the standpoint of safety

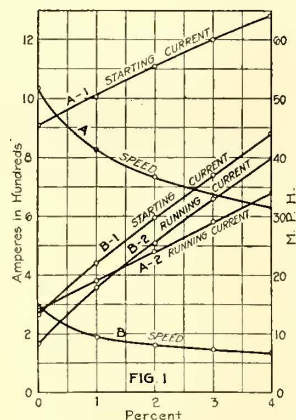


Fig. 1.—Comparative Starting and Running Currents Taken by an Interurban Passenger Car and Low-Speed Locomotive

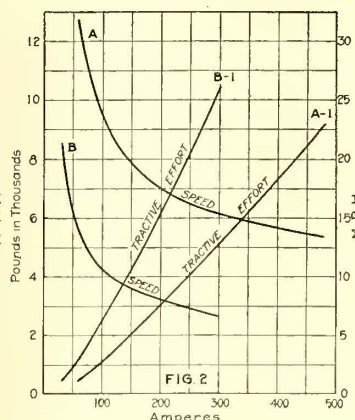


Fig. 2.—Comparison of Motor Characteristics for High-Speed Car and Low-Speed Locomotive Motors

LOCOMOTIVE AND PASSENGER MOTORS COMPARED

and ease of operation, while at the same time the proportion of energy wasted in rheostats and brakeshoes is increased by the short runs.

HIGH-SPEED MOTOR DRAWS 75 PER CENT MORE CURRENT FROM THE LINE

In Fig. 2 a comparison is made of the characteristic curves *A* and *A-1* of a high-speed motor and *B* and *B-1* of a low-speed motor of the same weight and general type of construction, but designed for locomotive service. The curves for both motors are based on the same

capacity, but with four low-speed motors; *B*, Fig. 2, the starting current was 740 amp. and the corresponding substation load was 444 kw. or within the overload capacity.

Further, if this service is started about the time that some of the passenger trains begin to go off the line for the night and ended at a time when the early morning trains are coming on, the improvement in the load factor will be considerable.

Motor combinations during acceleration are facilitated by equipping locomotives, as well as cars, with an

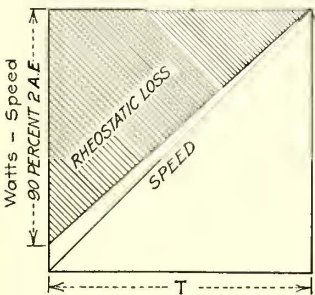


FIG. 3

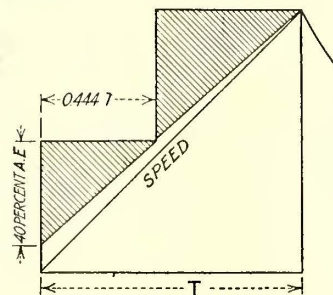


FIG. 4

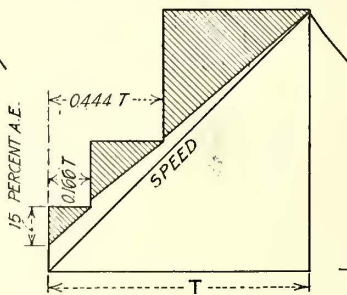


FIG. 5

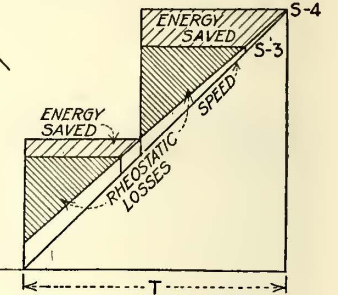


FIG. 6

Fig. 3—Rheostatic Losses for Rheostatic Control

Fig. 4—Rheostatic Losses for Series Parallel Control

Fig. 5—Rheostatic Losses for Three-Speed Locomotive Control

Fig. 6—Energy Saving Effected by Field Control

DIAGRAMS OF RHEOSTATIC LOSSES WITH VARIOUS TYPES OF CONTROL

gear ratio and wheel size. It will be noted that for any given tractive effort, the current taken by the high-speed motor is approximately 75 per cent greater than that taken by the low-speed motor and that the speed of the former is correspondingly higher. In some cases where low-speed operation is essential, high-speed motors have been connected in pairs of two in series and thus operated at half-voltage and a corresponding speed reduction obtained. This method of operation results in greatly reduced efficiency. It must be borne in mind also that the motor output at half voltage is approximately half the output at full voltage.

The adaptability of the low-speed freight handling

even number of motors. Most freight equipments have four motors. The following fundamental explanation of the operation of the control apparatus applies to 600-volt, four-motor equipments.

Placing all four motors in parallel across the line with sufficient resistance in the circuit to limit the first rush of current to a safe value is a most uneconomical and an obsolete method of starting any car or locomotive equipment. The gradual cutting out of this series resistance holds the current, and hence the torque, within relatively close limits as the locomotive accelerates. Control of this type is called "rheostatic."

The control in most general use is known as "series-



CHICAGO, LAKE SHORE & SOUTH BEND RAILWAY FREIGHT TRAIN HAULED BY A 72-TON LOCOMOTIVE

equipment to work without overloading the substation is well illustrated by the following case:

A trailing load of 240 tons was to be started on a 3 per cent grade located at a substation of 300-kw. continuous capacity and capable of 100 per cent momentary overload. With 25 per cent adhesion a locomotive weighing 45 tons was required. If this locomotive had been equipped with high-speed motors: *A*, Fig. 2, the starting current would be 1280 amp., thus loading the substation to 768 kw. or in excess of its

parallel." In this, the motors are permanently connected in two groups of two motors in "parallel." In starting, these two groups are first connected in series across the line with a variable series resistance and then the two groups are connected in parallel. With series-parallel control, there are two economical running points.

Three-speed control is better adapted to freight operation, because it provides one more economical operating speed than the series-parallel type to care for switching

and other low-speed movements. With this method the motors are first connected in "series," then in "series-parallel" and finally, in "parallel" with proper proportions of resistance in each step to secure smooth acceleration. In this scheme, the transition from full "series" to "series-parallel" is effected either by unit switches or some type of changeover switch. There is the advantage in the former scheme that the unit switches permit the motive power tractive effort to be maintained continuously from full "series" to full "parallel."

The shaded portions of Figs. 3, 4 and 5 represent the rheostatic losses of the three foregoing types of control respectively.

A = Accelerating or starting current per motor;

E = Trolley voltage;

T = Time required to reach speed with all resistance cut out with motors in full parallel.

The rheostatic losses with two-speed series-parallel control are 50 per cent less than with rheostatic control, while the three-speed control effects an additional saving of 10 per cent.

An additional feature of design that is most desirable in locomotive service is field control, which regulates the speed of a series motor by varying the effective field turns, thus considerably reducing the rheostatic losses. A very important advantage for freight motive operation is that four economical running speeds are provided with ordinary series-parallel control, thus the running notches of this control are "series" and "parallel" on full field, and "series" and "parallel" on short or normal field. Field control virtually provides a low-speed motor with a maximum tractive effort per ampere for starting or low-speed running, while the higher speed winding is available for road or any other operation that makes a higher speed desirable. The energy saving effected by field control is illustrated in Fig. 6.

Increase in Tramway Fares Essential

As a consequence of the recent wage award of the committee on production, it is said to be essential that tramway fares in Great Britain be increased. This has already been done in many places, but in some cases statutory restrictions prevent necessary revision. In view of this limitation a resolution was passed at a conference of tramway employers and representatives of the unions asking that the government promise that it will take immediate steps to authorize an increase of the maximum tolls and charges, whether statutory or otherwise, which may be demanded on all tramways in an amount to be decided by the Board of Trade. The resolution was signed on behalf of the Municipal Tramways Association by J. B. Hamilton; on behalf of the Tramways and Light Railways Association by R. J. Howley; and on behalf of the National Transport Federation by R. Williams.

As stated more in detail in the "London Letter" this week, Sir Albert Stanley has suggested the appointment of a select committee of the House of Commons to consider the matter. It is believed that the appointment of such a committee would probably prove the best means of facilitating the carrying out of the suggested legislation with the least delay.

An Epoch-Making Law

President Brush Believes that Public Control for Boston Elevated Is Fundamentally Sound—
Regulation with Responsibility the Aim

THE act of May 22 providing for the public control of the Boston (Mass.) Elevated Railway is the biggest, strongest, finest piece of legislation ever passed in the electric railway field. Such is the opinion of M. C. Brush, president of the company, as expressed to a representative of the ELECTRIC RAILWAY JOURNAL. The signing of the act was noted in the issue of May 24.

Mr. Brush believes that the plan has all the advantages claimed for public ownership with none of the disadvantages, and it is fair to all interests concerned—car rider, investor, employee and the general public. Based upon the integrity of the Commonwealth itself, it assures a square deal to the 6000 Massachusetts citizens who have invested their money in this property, and it provides a means of securing improved service for the community at actual cost. For a period of four years it compels the stockholder to take less than 6 per cent return upon the par value of his investment, but during this period the car-rider will also carry his share of the burden in the shape of a less satisfactory service than would be provided in normal times. Eventually the car rider will get his service at actual cost, and the future investor in the property will have a fair deal.

Continuing, Mr. Brush said:

"The act permits the community to realize upon its confidence in the management under public control, whereas public confidence in private management under private control has been difficult if not impossible to maintain under recent and present economic conditions. The public control of the company will unquestionably permit many improvements which cannot be satisfactorily effected otherwise. One of these matters is the reduction of stops; another is the provision of a volume of car service expressing the desires of the community, but at its true cost.

"The appointment of the trustees by the Governor is a strong point. This gives the public a real share in the management of the property, since the trustees are appointed by the elected chief executive of the State. The length of their terms, ten years each, minimizes the possibility of politics having an unfortunate effect upon the management.

REGULATION WITHOUT RESPONSIBILITY IS WRONG

"In my opinion, the usual scheme of public utility regulation by commissions without responsibility for the results of management is wrong. The solution of the electric railway problem in the United States does not lie in commission regulation and the 6-cent fare. To attempt to meet present economic conditions in this way is like putting arnica or witch-hazel on a cancer; it may temporarily increase the comfort of the patient, but it absolutely offers no cure for the condition.

"In the Boston act we have a board of trustees responsible for results; the fare and the revenue will be measured by the total service cost as carefully defined in the law, and the public can have exactly the volume and the character of service for which it desires to pay. The act will prevent the car rider from being forced

to meet costs which are not properly his, and for the first time in electric railway legislation there is no limit set upon the revenue to be supplied to meet the real cost of the service, including of course the return upon the investment.

"Speaking of this investment, I want to emphasize the fact that every dollar of the money which has gone into the company's securities has been put into the property with the consent of the Massachusetts Railroad Commission and the Public Service Commission; that within the last two years surely not less than 150 special investigators have literally turned this property inside out and examined every last detail of its operations and management, with the result that not \$1 of water has been found in its securities. Moreover, there has not been a suggestion of incompetence, inefficiency, dishonesty or imprudence brought forward by a single responsible investigator.

"The present act passed the Legislature by a vote of 157 to 29, in both houses combined—a result which never could have been attained unless every newspaper, municipal and town government, and State official concerned had entire confidence in the organization which has been operating the road. The company's stock has advanced from \$27 to \$74 per share in a period of about three months—a fact which speaks for itself.

PROPERTY NO LONGER A BUSINESS VENTURE

"In this bill the Legislature has done for the Boston Elevated Railway something which it has done for no other company in the State, *i. e.*, it has pledged the credit of the Commonwealth to guarantee to the stockholder that his investment shall have its fair return even as the public receives a corresponding service at definite cost. The act goes further than any previous one in providing for the necessary revenue for a fair return by taxation in the event that fares, transfer arrangements, etc., should yield an insufficient return. This means that the operation of the property is no longer to be classed as a business venture but as a genuine public service, for which actual costs must be met by the community and the car riders. I believe that the act is fundamental in scope, and that it will be the basis of other public utility rate agreements as its principles become understood and appreciated.

GOVERNMENT OWNERSHIP IS NOT DESIRABLE

"Of course, in expressing my opinion on this bill it must be distinctly understood that I am talking entirely about a public utility financed under Massachusetts laws and not about private enterprises for either semi-public or private purposes. The Massachusetts laws since 1873 have been extremely strict with regard to electric railways. Since all financing of this company has been done under these laws and since the point had been reached where it was evident that the company could not secure sufficient revenue to invite additional capital for transportation facilities, something of the character that has just been passed was inevitable.

"I am not in favor of government ownership or necessarily government control. I believe that if public utilities as well as private utilities are given opportunity to run their properties on a business basis with

the privilege of making such charges for their manufactured article whether it be transportation or something else, as will invite additional capital, the results will be better than to have the government own or operate all industries in the country."

SALIENT FEATURES OF NEW ACT

The terms of the proposed enactment were summarized in the *ELECTRIC RAILWAY JOURNAL* of April 20, page 778. The only essential change in the final act, which now awaits only the formal approval of the stockholders for enforcement, was in the provision for the appointment of the trustees. In the first bill, two of the five were to be appointed by the Mayor of Boston and three by the Governor of Massachusetts. This was changed so that the law provides for all appointments to be made by the Governor. Otherwise the law is substantially the same as the original bill, despite a few changes in phraseology.

For the convenience of readers, however, there is again published herewith a résumé of the main points of the new act:

1. The company is to be managed by five trustees, appointed by the Governor for ten-year terms at a salary of \$5,000 per annum.
2. The period of public control shall be ten years or longer at the option of the Commonwealth. The Commonwealth can terminate the public control at the end of the ten-year period or thereafter by legislation passed two years before the date fixed for termination.
3. The trustees operate the property, have power to regulate fares and transfer privileges, and determine character and extent of service, without being subject to the control of any State board or commission.
4. The company shall raise \$3,000,000 by sale of preferred stock at not less than par, \$1,000,000 to be used as a reserve fund and \$2,000,000 for additions and improvements.
5. Fares must be sufficient to meet the cost of service, including depreciation and common dividends at the rate of \$5 a share for the first two years, \$5.50 for the next two years and \$6 during the balance of the period of public operation.
6. The trustees shall adopt a schedule of eight different grades of fares, of which four shall be below and four above the rate of fare first established. The schedule shall be increased when the fare is changed, so that there shall always be not less than four above and four below the existing fare. The trustees may change the method or basis of fare establishment or regrade the schedule at any time.
7. Whenever income is insufficient to meet the cost of service, the reserve fund shall be drawn upon; if more than sufficient, the excess shall be transferred to the reserve fund.
8. When the reserve fund exceeds by 30 per cent or more the original amount and the income during the preceding three months exceeded the cost of service, the next lower grade of fare shall be adopted within one month. When the reserve fund is less than 70 per cent of the original amount, and during the preceding three months the income was less than the cost of service, the next higher grade of fare shall be similarly adopted. The fare shall continue to be decreased or increased if the reserve fund is above or below said limits. In determining the amount of the reserve fund, there shall first be deducted any amounts paid by the Commonwealth under the next section.
9. If the reserve fund at a half-year period is insufficient to meet the deficiency in cost of service, the State shall make up the deficit and assess this upon cities and towns in which the company operates. When reimbursed from the reserve fund, the State shall distribute the amount among the communities assessed.
10. At the end of the period of public control, the company shall revert to the board of directors, who may continue to operate it on the service-at-cost plan with a flexible fare and pay \$6 a share in common-stock dividends.
11. The State has the option of taking over the property by assuming the liabilities and paying in cash an amount equal to that paid in by the stockholders.

AMERICAN ASSOCIATION NEWS

Connecticut Section Hears About War

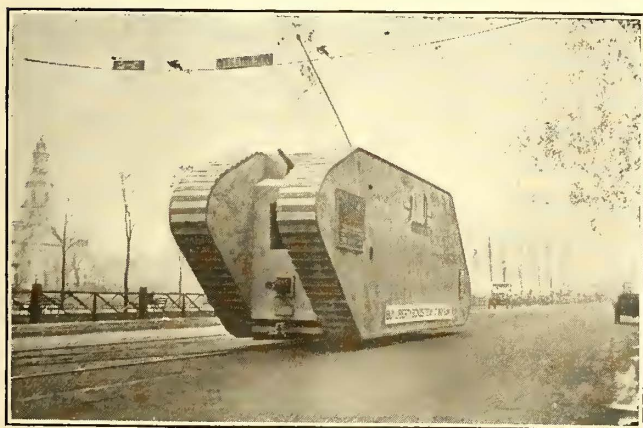
Returned Sergeant from General Pershing's Forces Tells What the Soldiers Need at the Front

TWO HUNDRED AND TWO members and guests attended the combined meeting and dinner of the Connecticut Company Section at the Hotel Stratfield, Bridgeport, on May 16. The first speaker was the Mayor of Bridgeport, Hon. C. B. Wilson. He was followed by one of General Pershing's men, Sergeant Reilly, just returned from the trenches, who told the needs of our soldiers "over there." Mr. Steinke, a cartoonist of one of the Bridgeport local papers, then showed how cartoons are drawn. Hon. E. T. Buckingham, compensation commissioner of the Fourth Congressional District, then gave an interesting talk on the compensation act. Rev. Alexander Allison, Jr., was the concluding speaker and gave a patriotic talk on the war.

As a supplement to the report of the April 30 meeting of the Connecticut Company section, printed in the issue of this paper for May 4, the following notes are of interest. At the meeting the membership committee reported that the section had enrolled to date 343 members, of whom forty-nine have left the company's employ, leaving a total net membership of 249. An announcement was made that the Rhode Island Company section will invite the local members to a joint meeting to be held at Providence probably in June. This is a return courtesy for the "Rhode Island Night" meeting held some weeks ago at New Haven.

Another Liberty Loan Artillery Tank

IN THE recent highly successful drive for subscriptions to the Third Liberty Loan, employees of the Connecticut Company constructed the "tank" shown in the accompanying photograph. This is similar in many



THE "NATHAN HALE" ALONGSIDE THE "GREEN,"
NEW HAVEN CONN.

respects to the tank used by the Berkshire Street Railway, Pittsfield, Mass., pictured on page 857 of the issue of the *ELECTRIC RAILWAY JOURNAL* for May 4, 1918. The Connecticut Company's tank was appropriately named "Nathan Hale."

Accidents in London Cut Nineteen Per Cent

London Safety-First Council for 1917 Reports Wide Progress and Pledges Continuance of Work During the Present Year

AFTER a year of safety-first work, the London (England) Safety-First Council states in its report for 1917 that it will continue to apply itself to the extension of the safety movement. It plans to develop every conceivable means of reducing accidents, to act as a clearing house for ideas pertaining to traffic safety, to collect and collate statistical information, and to consider carefully the effects of the changing conditions of traffic after the declaration of peace, as a result of the increased production of power-propelled vehicles and the release and adaptation, for trade purposes, of a large proportion of the motor vehicles now employed on war work.

The London Safety-First Council, formed as a result of a conference held near the end of 1916, comprises representatives of nine railways, three tramways, five omnibus companies, three vehicle workers' associations, fifteen technical research societies, seven commercial firms, forty-five local authorities (six of which are also tramway authorities) and others. The administrative work is intrusted to six committees and four sub-committees, namely: drivers' educational committee and advisory sub-committee; street safety committee and advisory and street-lighting sub-committees; railway safety committee and advisory sub-committee; publicity committee; general purposes committee and industrial safety-first committee. To this number it is proposed to add a committee to handle the dissemination of safety propaganda among schools.

The work of the council during 1917 was devoted to the conservation of life, limb and property in the greater metropolitan area. The activities of the various committees during the period are described in the report. From Jan. 1 to Sept. 30, 1917, the total number of persons killed was 489 as compared to 577 in 1916 and 578 in 1915, and the number of accidents to persons or property totaled 27,960 as compared to 34,575 in 1916 and 40,730 in 1915. The reduction from 1916 was, therefore, 15.26 per cent for persons killed and 19.14 per cent for accidents.

The suggestions made and approved by the council during the year covered such matters as street refuges, the position of lamp columns, snow cleaning, the whitening of curbs, crossings over footways, lighting of street obstructions, indication of cul-de-sacs, the rule of the footpath, danger signals on street lamps, lighting of main and side streets, lighting of street refuges, diffusion of public street lighting, illuminated signs at tramway stopping places, standardization of lamps on vehicles, air raid shelters, safety device for the front of motor vehicles and queues for tramcar and omnibus passengers.

In connection with the using of queues, it was said that, as the present practice of forming queues at certain places had proved advantageous, it was desirable that a scheme for its extension should be formulated, and that the police, local authorities, tramway corporations and omnibus companies operating in the greater London area be so informed.

Air-Operated Door and Steps Installed at New Brighton

Safety Considerations Prompt the Substitution of Air for Manual Operation—Other Features of the Cars Are Given

THE Richmond Light & Railroad Company, New Brighton, N. Y., operating 32 miles of track on Staten Island, has recently completed the installation of air-operated doors and steps on thirty-two double-track four-motor cars purchased from the Osgood Bradley Car Company in 1915. When these cars were purchased the doors and steps were manually operated by means of hand levers, the motorman tending the front doors and the conductor the rear. Under the rules existing then and now passengers board at the rear and leave at the front. Some difficulty was experienced with manual operation, the greatest trouble being due to the failure of the steps to fall when the doors were opened. This difficulty became a matter of safety and

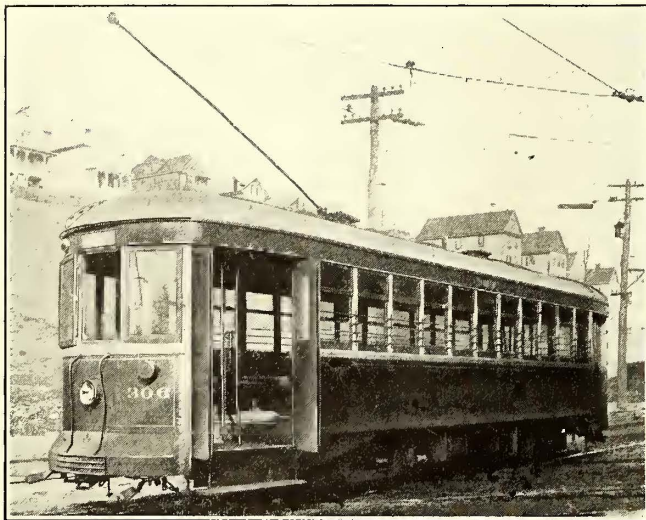


FIG. 1—NEW BRIGHTON CAR WITH AIR-OPERATED DOORS AND STEPS

it was decided to overcome all trouble by installing air-operated doors.

A contract for the door engines was made with the Smith-Ward Brake Company, New York, and the engine shown in the accompanying illustration was designed especially for the purpose. This is a 6½-in. center-feed pneumatic engine, packed in dry graphite instead of the customary grease. The movement of the plunger operates a series of levers which in turn open and close the doors. Figs. 2 and 3 show the engine as connected. The two handles on the center post, Fig. 3, are for use of the conductor when this is the rear end of the car. A horizontal turn of about 45 deg. actuates the series of levers and admits air behind the piston. The doors open quickly and a reverse action closes them. Fig. 3 actually shows the front end of the car as it appears in operation. The two handles by which the motorman controls the door movement are visible one on each side of the front window. These work on the same levers and in precisely the same manner as do those of the conductor.

The door opening is 52 in. On some lines where the traffic is well distributed and where there are no

congested boarding or alighting points, it has been considered wise to use only one-half of the door during cold weather. This has been accomplished by simply loosening a nut on one engine lever and placing a steel strip across the top of the door to hold it firmly in position. The door operation is interlocked with the control circuit so that when doors are open the power is cut out and the car cannot be started. The steps operate in conjunction with the doors, the height from rail to first step being 14 in., from step to vestibule floor 14 in., from vestibule floor to car floor 9 in., and there is a 3-in. ramp in the car floor.

The cars are of semi-convertible steel construction 40 ft. over-all length and 8 ft. 3 in. over-all width, with a seating capacity of forty-six. The Hale & Kilburn

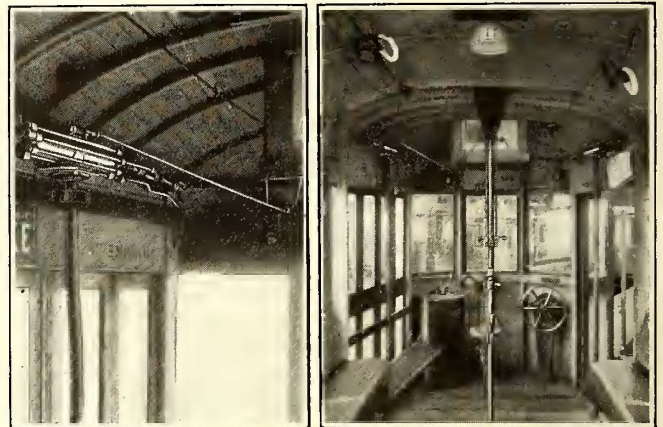


FIG. 2—PNEUMATIC 6½-IN. CENTER-FEED DOOR ENGINE ON NEW BRIGHTON CAR. FIG. 3—END OF CAR SHOWING DOOR ENGINE, OPERATING LEVERS, SEATING ARRANGEMENT, ETC.

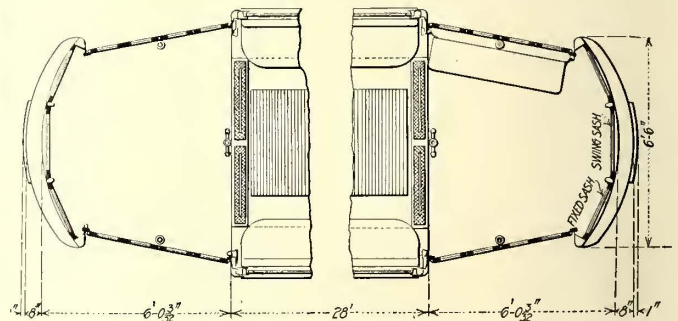


FIG. 4—PLATFORM ARRANGEMENT OF NEW BRIGHTON CAR

walkover seats are arranged six transverse in the center and there are four seats 9 ft. 6 in. long placed longitudinally at the ends. The aisle between center seats is 2 ft. 3 in. wide. As shown in Fig. 3 there is also a slat seat provided on the platform in front of each closed door, the platform being 6 ft. long. Johnson fare boxes are used with a pay-as-you-enter system of fare collection. The cars are equipped with Giant staffless brakes of the National Brake Company and with Automatic Ventilator Company's honeycomb ventilators. Other equipment includes Earle trolley catchers, Providence fenders, H. B. lifeguards, Westinghouse Type 323-B motors and Standard trucks No. 50 with 33-in. wheels.

The Ohio Brass Company's system of electric signal lamps is used. There is one lamp at each end of the

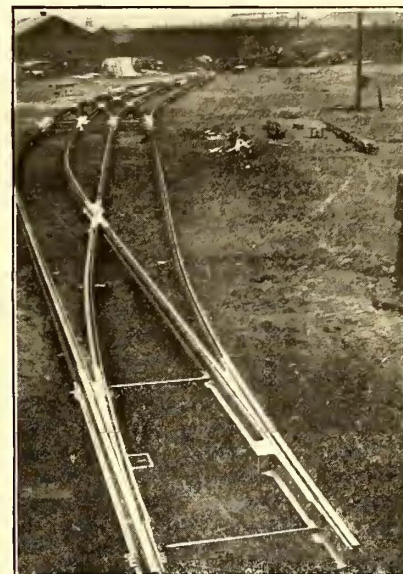
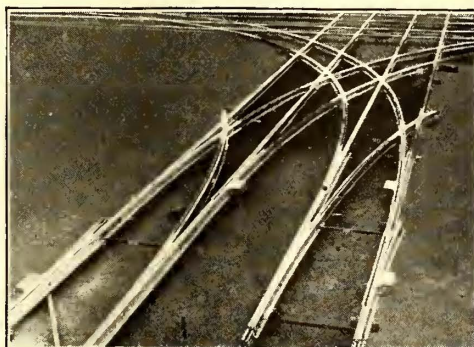
car arranged so that when the main lighting switch is in, a red signal will show at the rear of the car, receiving current from the trolley circuit. In case of accident to the power or main lighting circuit, a red signal will show at each end and two pilot lamps inside the car located at opposite corners, Fig. 3, will be lighted, the four lamps receiving current from a storage battery and being operated by an automatic relay switch. The regular lighting system consists of seven lamps placed in a row down the center of the roof.

An electric buzzer is located at each end of the car and there are four electric push-buttons located one in each corner, Fig. 3. The buzzers operate from the same storage battery as the emergency lights. Golden Glow electric headlights are used.

Outside-Switch and Double-Switch Types of Special Work Are Common in England

THE outside-switch type of special work, discussed by W. L. Whitlock in the March 16 issue and by M. Bernard in the May 4 issue of the *ELECTRIC RAILWAY JOURNAL*, is in quite extensive use on English tramway systems.

The accompanying illustrations show some special-



At Left, Double-Switch Type of Construction with Tongues Connected. In Center, Special Work Construction with Outside Switch in Some Runs. At Right, Double-Switch Type of Construction with Tongues Arranged to Work Independently

work layouts with this type of construction, and the editors of this paper are advised that no particular trouble is experienced with the mate if properly gaged. Trouble can, however, be entirely avoided if both points are switches, the tongues being connected together on facing tracks, whereas on the trailing side they can be either connected or arranged to work independently.

Two-track layouts with double switches are illustrated. One shows the switches connected, while the other shows the tongues arranged to work independently. These can be set to run to right or left as desired. The particular layouts shown were built by Edgar Allen & Company, Ltd., Sheffield.

The United Railways, St. Louis, Mo., prepared for the introduction of the 6-cent fare on June 1 by converting \$31,000 into pennies. The pennies weigh approximately 11 tons.

Difficulties and Precautions Necessary in Storing Coal

The Engineering Experiment Station of the University of Illinois has just completed a study of the problems involved in coal storage and has published the results in a 200-page illustrated book designated as circular No. 6, "Storage of Bituminous Coal." The study was made under the direction of H. H. Stoek, professor of mining engineering. The reasons, advantages and costs of storing coal are given, the kinds and sizes of coal which may be safely stored are described and the many factors entering into successful storage are discussed.

As a result of the difficulty experienced in obtaining coal during the past winter, the more general storage of coal during the spring and summer months is coming to be recognized as the best means of avoiding a coal shortage during the coming winter. Many corporations and individuals will this year undertake for the first time to store large quantities of coal.

The storage of the bituminous coal presents certain difficulties because of its tendency toward spontaneous combustion with its attendant dangers and losses. The methods to be employed in avoiding spontaneous combustion have not generally been well understood and

those which have seemed successful in some cases have failed in others. Copies of this circular may be purchased from the Experiment Station.

Conductors to Knit Socks While Not Collecting Fares

The motormen and conductors at the east side car-house of the Twin City Rapid Transit Company were recently presented with two knitting machines by Horace Lowry, president. If these machines are used to good advantage others may be placed in other carhouses.

The carmen did not like to be outdone by neighboring firemen who they discovered were turning many otherwise idle hours to efficient use by knitting articles for soldiers and sailors. Their ambitions were made known to the Red Cross and resulted in the machines being furnished.

Recent Happenings in Great Britain

Fares Again a Problem—Sir Albert Stanley to Ask House to Appoint Select Committee—Need for Curtailments a Problem

(From Our Regular Correspondent)

In answer to a question in the House of Commons Sir Albert Stanley, president of the Board of Trade, stated recently that he had received a deputation representing a very considerable number of municipal and company tramway undertakings, which urged that owing to the enormous increase of wages and the very heavy increased charges for material, these undertakings receive special consideration in regard to the charges they are making. Sir Albert did not feel he could take upon himself the responsibility of determining that question, particularly in view of the fact that he had stated in the House that the Board of Trade would not deal with the question of increased tramway charges without first referring the question to the House. It was because of that pledge that he promised the deputation that he would ask the House to agree to appoint a select committee to investigate the question.

RELIEF FOR RATES A PROBLEM

Municipal tramway services, in many instances, have for some years been so well organized and used by the public that the tramway committees have found themselves able to transfer considerable sums to the municipal corporations in relief of the rates. That condition has lasted so long that it has come to be regarded as normal, and now, when the rates are mounting, corporations are disinclined to accept a smaller amount for transfer or none, although the committees discover that expenses are so much higher that considerations of sound finance would almost forbid any such remittance. There are two means by which the situation can be met. One is to raise the fares, the other to shorten the distances covered by a certain fare. The public does not take kindly to these methods, and the question is also raised of statutory or workmen's fares which cannot be increased at will. In addition the subjects of maintenance and repairs have come forward at Birmingham and Nottingham and elsewhere.

MR. PRIESTLY APPOINTED TO LIVERPOOL

J. S. D. Moffet, Belfast, has decided not to accept the position of deputy-manager of tramways under the Liverpool Corporation, to which he was appointed, and the tramways committee has appointed Percy Priestly, the general manager of the Oldham Corporation Tramways. Mr. Priestly served his apprenticeship at the Scotia Engine Works, Scotland, and for some five years afterward he was a marine engineer. For six years he was deputy-manager at the Halifax Corporation Electricity Works, and for nine years general manager and engineer of the Mexborough & Swinton Tramways. For

the last two years he has been at Oldham.

An important contract for a generating plant has been awarded to Dick, Kerr & Company, Ltd., by the Glasgow Corporation for the new power station in course of erection at Dalmarnock. The contract includes a turbo-alternator set, with condensing plant and step-up transformers designed for a continuous output of 18,750 kw. The turbine will be a single-unit standard Dick-Kerr impulse type machine, arranged to run at 1500 r.p.m. and will operate on steam at 250 lb. per square inch pressure at the stop valve, superheated to 650 deg. Fahr. The turbine will be direct coupled to a 6500-volt, 25-cycle, three-phase Dick-Kerr alternator, having a maximum continuous rating of 24,000 kva. at 80 per cent power factor. The machine will be of the self-ventilating type, provided with fans on the rotor drawing the cooling air through a wet air filter of the Heenan and Froude type. An exciter of the overhung type will be provided. The alternator will be electrically connected to a bank of three Westinghouse single-phase oil-circulated water-cooled transformers, stepping up the pressure from 6500 to 20,000 volts. In connection with these transformers, a separate oil cooler and motor-driven oil-circulating pumps will be provided. The turbine will exhaust into a standard Willans & Robinson condenser, having a surface of 26,000 sq.ft.

WOMEN CONDUCTORS PACIFIED

At a meeting of the war wages committee of the Bradford Corporation, it was reported that the decision of the committee on production with regard to the wages dispute between the conductresses employed on the Bradford tramway service and the tramways committee had been received. The Ministry of Labor had been asked to interpret the award given on March 8, last, by the committee on production relating to tramway and motor-omnibus workers' wages. By that award an advance of £1 a week on pre-war rates was granted, but it was held by the Bradford tramways committee that this, while it applied to the men, did not apply to the women tramway workers, who had been receiving a smaller war bonus than that received by the men. The committee's contention was that under the award the women were entitled to an advance of 4s. a week, making an advance of 13s. a week on pre-war rates. The committee on production has approved this.

Alderman Charles F. Spencer, chairman of the Halifax tramways committee and recently appointed director of National Kitchens, is experimenting with an old tramcar fitted up with ovens and cookers supplied with electricity from the overhead wires. The appearance of the vehicle outside is

none too inviting, but inside it is equipped so as to bring cheap, warm and nourishing meals to the doors of the community. Food for the workers had previously been prepared at the central cooking depot in Great Albion Street. Laden with attractive edibles, the traveling kitchen was at noon driven over the tram route to the Fountain at King Cross, a thickly populated industrial part of the borough. There women workers from the factories, women with families, men in overalls, and children all brought dishes, jugs, basins, or other domestic receptacles, to be filled. As soon as the kitchen was opened for business there was a rush for the steaming hot food, which it contained. The experiment will be continued in other parts of the city.

OWL SERVICE DISCONTINUED

At a meeting of the tramways committee of the Birmingham City Council, it was decided, in view of the curfew order and the desire of the government to limit the use of electricity not to run tramcars from the central terminal after 11 o'clock at night. In accordance with the authority given by the City Council, application has been made to the Board of Trade for permission to revise the tramway fares by shortening the penny stages. Under a Board of Trade order 1d. fare covered a journey of 2 miles, and this distance, having regard to the greatly increased cost of working the tramways, is now considered excessive. The ½d. fares hitherto charged for children have been withdrawn on tramcars and omnibuses. Children over the age of three and under fourteen are now carried at half fares, with a minimum fare of 1d. The system of charging 1d. fares for adults on motor-omnibuses has been withdrawn. The minimum fare has been fixed at 2d., and all other stages have been increased by 1d.

SERVICE REDUCED IN LIVERPOOL

The Liverpool tramway service is to be reduced 30 per cent on government orders. It was expected that the restricted facilities, under which two cars would have to do the work of three, would be operative by the end of May. Notwithstanding the record number of passengers which the tramways has been carrying, it has been found essential to conserve both man-power and energy. The curtailment is general. The North of England, thanks to its possessions of coalfields, is ordered to make a 30 per cent reduction, whereas a 60 per cent cut is required by the services in the south. North is separated from south by a line drawn from Boston to Bristol. London is subject to special arrangements. The service now maintained in Liverpool is only a little below the pre-war standard, but the passenger record has increased by about 30,000,000 a year. The present facilities, so far from being ample, are said to be nothing like equal to requirements, especially as the city has become a much bigger center of both engineering and shipping.

A. C. S.

News of the Electric Railways

TRAFFIC AND TRANSPORTATION

FINANCIAL AND CORPORATE • PERSONAL MENTION • CONSTRUCTION NEWS

A. E. R. A. Meeting Plans

Subjects Already Selected Are Based on Conditions—Accountants and Claims Topics Not Announced

The following program of sessions for the convention of the American Electric Railway Association on Oct. 8, 9 and 10 at Atlantic City has been adopted:

TUESDAY, OCT. 8

Afternoon—American Association.
Evening—American Association.

WEDNESDAY, OCT. 9

Morning—Accountants, Engineering, Claims and Transportation & Traffic associations.
Afternoon—American Association.

THURSDAY, OCT. 10

Morning—Accountants, Engineering, Claims and Transportation & Traffic associations.

All sessions will be held on Young's Million Dollar Pier. There will be no exhibits. At the meeting on Tuesday evening there will be an address by a prominent member of the national government. For this reason it is hoped that all delegates will arrive in Atlantic City on Tuesday.

The programs of subjects made public by the associations show that they are based on war conditions. Those of the Accountants' and Claims Associations have not yet been decided upon, but the subjects, as tentatively adopted by the other associations, follow:

AMERICAN ASSOCIATION SUBJECTS

Railway Revenue—

- Necessity for increases and insufficiency of any possible economies to meet need.
- Magnitude of increase required, now and in the future.
- Difficulties in the way of securing increases. The extent, if at all, to which employees and investors should be required to bear the burdens of increased costs.
- How the association can help in securing increases.

Future of Electric Railways—

- From the investment banker's viewpoint.
- From the operator's viewpoint.
- As to municipal ownership.

President's Address.

Address by Member of War Board.

Address by Representative of the National Administration.

Lessons from European Experience.

ENGINEERING ASSOCIATION SUBJECTS

President's Address.

Economies in Operation and Maintenance—to cover production and distribution of power, maintenance of

roadway, structure and rolling stock.

Engineering Activities in the War Zone. Difficulties of Securing Materials—

- From the manufacturer's standpoint.
- From the purchasing agent's standpoint.

Engineering War Activities in the United States.

T. & T. ASSOCIATION SUBJECTS

President's Address.

Opportunities for Young Men in Electric Railway Work.

Maintenance of a Transportation Force During the War, with Special Reference to Women Conductors.

The Skip Stop—Spreading the Peak Load—Economies in Using Power. Electric Railway Transportation in Great Britain as Affected by the War.

ENTERTAINMENT PROGRAM

The entertainments will be of a simpler character than heretofore, to accord with war conditions, but will be such as to keep the delegates busy during their hours "off duty." The principal feature will be a reception and dance on Oct. 9.

E. F. Wickwire, chairman of the 1916 entertainment committee, is in charge this year. The following have been selected to serve with Mr. Wickwire: J. J. Dempsey, vice-president of Brooklyn Rapid Transit System, Brooklyn, N. Y.; E. R. Kelsey, publicity manager of the Toledo Railways & Light Company, Toledo, Ohio; Frank Gale, advertising manager of the General Electric Company, Schenectady, N. Y.; J. C. McQuiston, manager of the publicity department of the Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

Strike in Atlantic City

The employees of the Atlantic City & Seashore Railroad, Atlantic City, N. J., went on strike on May 23 following the refusal of the company to grant their demands for increased pay and better working conditions.

Last summer the company announced that owing to the increased cost of operation it could not grant any wage increases. Since that time there had been repeated agitation for changed conditions and better pay. The company refused to recognize the union, but has increased wages. When the company learned that the situation was acute it began importing men so the early summer rush could be handled without much interference. The motormen and conductors then met and sent an ultimatum to the company.

Toledo Injunction Argued

Railway History of Ohio City Reviewed in Injunction Case Growing Out of Wage Advance

At a hearing during the week ended May 25, on the temporary injunction granted the Toledo Railways & Light Company against the city of Toledo, Henry L. Doherty, chairman of the board of the company, reviewed the history of the Toledo Street Railway Commission and its work in preparing the community plan of operation. Mr. Doherty was a member of the commission in the first place, but he eliminated himself or was eliminated, whichever people chose to consider it. Mr. Doherty said his publicity campaign when the Dotson franchise was proposed did not produce the results that were anticipated.

In regard to the community plan, he said Member Thurston put a number of unworkable ideas into it, but that the break came in the proposed manner of handling stock sold to the public. He denied that any of the meetings of the commission had ever been held outside of Toledo.

MR. WITT A WITNESS FOR COMPANY

Peter Witt, Cleveland, testified for the company. He suggested that the income might be increased by speeding up the cars, rerouting cars about the loops, keeping wagons off the tracks on the streets and making as few stops as possible. He urged that a campaign be conducted by the company to make car riding more popular.

F. C. Hamilton, electric railway engineer, New York, presented figures to show that the new rate of fare, 5 cents with 1 cent for transfers, will pay only the increase in wages allowed recently by the company to the conductors and motormen. He said there would be nothing left to increase the dividends of the company.

MAYOR SCHREIBER GRILLED

Mayor Cornell Schreiber testified that he had done nothing that would cause people to think he intended to interfere with the operation of the cars. On the other hand, he had declared that the cars must not stop as the result of a strike or for any other cause. Attorneys took him back to campaigns for office some years ago when he is said to have advised people not to pay more than 3 cents for a ride. He was not a very willing witness on this point.

The injunction was granted to prevent the city from interfering with an increase in fares in Toledo to meet increased wages which had been agreed upon by the company and its employees.

Detroit and Cleveland Wages Under Advisement

War Labor Board in Chicago Hears Contentions of Companies and Men in Michigan and Ohio Cities

After a five-hour session in Chicago, Ill., on May 27, the United States War Labor Board took under advisement the disputes between the employees and the managements of the Detroit (Mich.) United Railway and the Cleveland (Ohio) Railway as to wages and working conditions. William Howard Taft and Frank P. Walsh, co-chairmen, as well as the full membership of the board, were present. There were also present F. W. Brooks, president of the Detroit United Railway, and John J. Stanley, president of the Cleveland Railway, and other officials of the Detroit and Cleveland companies, as well as representatives of the unions and municipal governments in both cities. The case for the employees was presented by Attorney James H. Vahey and International President W. D. Mahon, while Attorney Bernard J. Weadock presented the Detroit company case and Attorneys H. J. Crawford and Andrew Squires told of the Cleveland company situation.

DECISION PROBABLY A PRECEDENT

Chairman Taft announced that an examiner would be appointed to check up the evidence and the exhibits, after which the full board will make a ruling for the purpose of bringing about an amicable settlement. Following the hearing, Chairman Walsh said the employees would receive a fair wage, no matter what readjustments or additional legislation might be required to accomplish this result. The decision of the board in this joint case is expected to set a precedent for other wage disputes affecting electric railways.

There was a dispute between the attorneys at the opening of the case because Mr. Vahey presented, on behalf of the men, demands which were more extreme than those covered in a written demands previously presented to the Detroit company. The board held, however, that the inquiry was "wide open," the purpose being to determine what the men are really entitled to. In brief, the conductors and motormen in both cities ask for straight pay of 60 cents an hour and that 40 per cent of the runs be covered in eleven consecutive hours; 40 per cent in twelve and 20 per cent in thirteen consecutive hours. They also ask that all Sunday and holiday runs be straight time not exceeding eight hours and that the night cars be straight eight-hour runs with ten hours' pay; also for Detroit the men ask time and a half for overtime, which is allowed in Cleveland.

The Detroit men also ask that car inspectors, controller men and pit men be included in the trainmen's agreement. The board made an important ruling on this point to the effect that these men could organize and join the union, but the company would not be compelled to recognize them or to have a closed shop for such employees. The chair-

man also held that under the principles established by the board, there could be no discrimination as to sex or color, and if the necessity arose, the company should not be prohibited from employing negroes as motormen or women as conductors.

COMPLAINT AGAINST SPREAD OF HOURS

Attorney Vahey complained that the conditions in Detroit and Cleveland as to spread of hours, reaching in some cases more than fifteen hours, was intolerable, and that this should be corrected either by reducing the spread of hours or fixing a penalty where the schedules are made on that basis. In this connection, Chairman Taft wanted further information on the Massachusetts nine-in-eleven-hour law and the Ohio statute, which requires eight hours of rest between two working days. He wanted to know what attracted men to the electric railway business and was told that steady employment was one of the features.

Attorney Vahey dwelt at length on the difficulties and responsibilities of the trainmen's work, which he classed as skilled labor. In referring to wages, he introduced exhibits showing schedules of higher pay in other trades in Detroit and Cleveland, and he contended that the right of the men to a proper standard of living should not be controlled by the lack of financial ability on the part of the companies. He informed the board that the average pay of trainmen was about \$90 a month in these cities and he pointed to the recent award for steam railroad employees, giving large increases in wages. Mr. Mahon said that the association was not insisting on an eight-hour day during war times as it realized unusual conditions existed.

EMPLOYEES SURPRISE COMPANY

Attorney Weadock, for the Detroit company, said the new demands presented on behalf of the men had found the companies unprepared to reply, and he asked time to file additional exhibits later on. He explained conditions in Detroit, where he said about 50 per cent of the industries are engaged in war work, resulting in high wages which the company has found it impossible to meet. He told of the situation as to employment of negroes and the refusal of the union to grant them work cards. He also said the union objected to the employment of women as conductors, and that a fine was provided for a motorman who in an emergency might choose to work as a conductor on a trailer. The revised demands of the union, he said, would mean an increase of \$5,750,000 in wages—an increase of 110 per cent—and the employment of 1566 additional trainmen. He contended that the work of a conductor or motorman did not constitute skilled labor, and in support

of this he quoted from Bulletin 204 of the United States Bureau of Labor Statistics, which classes these occupations as calling for "responsibility rather than skill."

Mr. Weadock also made the point that the Detroit fares were the lowest in the United States and up to a recent date the wages for trainmen were the highest in any city east of the Rocky Mountains. He said that while the recent award to steam railroad employees granted a large increase in pay, this was promptly met by an advance in freight and passenger rates. The electric railways were not in a position to meet expenses in this way. He made a strong point of an exhibit showing that the majority of trainmen in Detroit did not seize an opportunity to earn the maximum amount of wages, and contended that it was not likely they would do so.

Assistant Superintendent Ives filed a number of exhibits on schedules.

COMPANY NEEDS LARGER REVENUE

Mr. Weadock made a point of the financial situation of the Detroit company, saying that in spite of an advance in rates of fare last year, there was a deficit in the net revenue. He expressed the hope that the War Labor Board would make some recommendations that would result in larger revenues for the company, with which to meet increased costs. Chairman Taft explained that the board was not conscious of having any power to do this, but the members would consider the situation. The corporation counsel of Detroit said the city was interested primarily in service, and that he also hoped the board would point the way to meet any increased costs which might be fixed by its award.

Attorney Crawford told of the peculiar situation in Cleveland under the Tayler ordinance. He pointed out that the maximum rate of fare allowed under the ordinance was now in force, but even with this new revenue it was estimated that there would be a deficit of \$925,000 in the current year, even without increasing the trainmen's wages. These new demands would mean an added burden of \$2,500,000. Attorney Squires emphasized these points and said the moral influence of the War Labor Board would be helpful in pointing the way to secure new revenue. The company did not like to reduce the service, even though this was permitted under the provisions of the ordinance.

Fielder Sanders, City Commissioner of Cleveland, said the city and the company were co-operating and every possible step had been taken to reduce expenses and increase revenues. The only possible remedy which he had in mind was a provision for staggered hours for factory and store closing, which would cut the peak in half. He referred to the experience of Washington and Rochester along these lines and he thought the recommendations of the board would pave the way for its adoption in Cleveland.

Boston Stockholders to Act on June 3

The directors of the Boston (Mass.) Elevated Railway on May 24 called a meeting of stockholders to be held on June 3 to take such action as the stockholders deem advisable with reference to the acceptance of the act to provide for the public operation of the Boston Elevated Railway, and also to pass upon the matter of authorizing the issue of \$3,000,000, par value, of preferred stock for the purposes specified in the act.

Chicago Freight Ordinance Not Yet Drafted

About two months ago the State Council of National Defense requested the City Council of Chicago, Ill., to take under consideration the matter of passing an ordinance which would permit the transportation of freight and express over the elevated and surface lines. This would make possible the delivery, receipt and interchange of freight by and between the various electric interurban lines which radiate from Chicago, but are now obliged to maintain their terminals from 6 to 8 miles from the heart of the city.

The matter was referred to the committee on local transportation, who in turn referred it to a sub-committee with H. B. Capitain as chairman. This committee is now drafting an ordinance which will permit the handling of freight and express, but will restrict this to certain classes. Considerable difficulty is being experienced in framing an ordinance which will permit the handling of such materials as will directly benefit the community and yet not permit undesirable freight to be handled.

The committee is at present very busy trying to work out other ordinances in connection with the surface and elevated lines, but reports that the freight ordinance may be put through before the end of the summer vacation.

Organizing to Insure Clean Coal

To guard against the waste and serious loss resulting last winter from the shipments of dirty coal, which occupied car space and also seriously decreased industrial plant efficiencies, the Fuel Administration has organized a division of inspection, with C. M. Means as manager. A chief inspector has been appointed in each of twenty-one representative districts and where necessary assistant inspectors will be added. These inspectors will examine coal in the mines, also as dumped from mine to tipple, watch the picking tables and again inspect the coal as it is loaded in cars for shipment.

Standards will be established for insuring proper preparation according to use, so that all coal shipped must be of the quality required for its particular purpose. By condemning coal at the mine, a great improvement in the transportation situation should result

in that the railroads will in effect be hauling heat units, not ash. Miners who get out dirty coal will be penalized, and a bonus system is being developed. Mines that cannot supply properly prepared coal will not be allowed to ship by rail.

Wage Increase in San Diego

The following scale of wages for motormen and conductors of the San Diego (Cal.) Electric Railway will be in effect commencing June 12. First year, 32 cents an hour; second year, 34 cents an hour; third year, 35 cents an hour; fifth year and thereafter 38 cents an hour.

One-man car operators are allowed 3 cents an hour in addition to the regular rate of pay.

The new scale represents an average increase of 10 per cent over the scale which went into effect on Aug. 15, 1917, and, in addition, increases the rate of bonus for operators of one-man cars to 3 cents an hour instead of 2 cents.

When Vice-President and Managing Director W. Clayton became connected with the company in San Diego the platform men received 20 cents an hour. This was in 1901. From that date the men have never asked for an increase; but six times since that time voluntary increases have been authorized, usually coming to the men, as in the case of the last announcement, as a clear-cut surprise. The increases were allowed in October, 1906; January, 1910; January, 1912; January, 1914, August, 1917, and June, 1918.

Portland Jitneys Win

At a special city election in Portland, Ore., on May 17, the people voted about two to one for the return of the jitneys. This result is attributed to the vicious campaign of misrepresentation and the widespread sentiment against the 6-cent fare in effect on the lines of the Portland Railway, Light & Power Company.

Two regulatory measures were before the voters on May 17. One was known as the "Jitney Bonding Ordinance" and was placed on the official ballot by action of the City Council. It provided that the bond of \$2,500, which has been in effect, should be reduced to \$1,000 for one or a few jitneys, with a single \$10,000 bond for any number more than a few. This ordinance did not provide for any regulation of jitneys as to service, routes, schedules, transfers, etc.

The other bill was entirely a jitney service measure. It was known by that name and was placed on the official ballot through the initiative of the employees of the Portland Railway, Light & Power Company. The purpose in this case was that if the jitneys did come back they would be required to give reasonable, regular and dependable service.

The Portland Railway, Light & Power Company has reprinted in pamphlet form a series of fifteen advertisements published in the daily newspapers, relating to the 6-cent fare case and the two jitney measures.

Reading Employees Strike

A considerable number of trainmen in the employ of the Reading Transit & Light Company, Reading, Pa., went on strike on May 22 following the refusal of the company to meet a demand for an increase in wages of 6 cents an hour. A statement of the company follows:

"Eight employees of the Reading Transit Company were dismissed from the service of the company on May 23 when it was learned that they were implicated in a movement started by an out-of-town organizer which might have resulted in crippling the car service.

"All of the men employed by the company were recently granted an increase of 1 cent an hour in wages to go into effect on June 1, when their rate of pay will be from 28 to 31 cents an hour, depending upon a length of service of from one to three years.

"To all appearances the men were satisfied with this advance until the advent of an out-of-town agitator, who is said to have come to Norristown to look into labor troubles in other industries. The railway men had never made any demands upon the company for wages, neither had the men come to the company with any other complaint or grievance. When the company learned of the new method being employed to create dissension among the men it was deemed best for the preservation of service to the public to dispense with the service of those dissatisfied. The men also were told that the company was willing and eager to meet its employees about any matter they decided to take up, and that it was unnecessary for them to have the services of an outsider to look after their interests. The discharged employees were told that if it could be shown that the company had made a mistake in their dismissal the matter of their reinstatement would be promptly taken up."

News Notes

Increase in Wages in Tampa.—The Tampa (Fla.) Electric Railway has recently increased the pay of all trainmen and all carhouse, track and other employees not on a monthly salary basis 2 cents an hour.

Men Reject Wage Offer.—The employees of the Worcester (Mass.) Consolidated Street Railway have voted to reject the offer of a wage increase as made to them by the company. They consider the offer of the company inadequate in view of the present economic conditions.

Increase in Wages in Sacramento.—An increase of 3 to 5 cents an hour in the pay of 175 motormen and conductors employed on the local railway lines

operated by the Pacific Gas & Electric Company, Sacramento, Cal., was announced on May 17 by representatives of the company. It was to become effective immediately.

Winnipeg Paralyzed by Strike.—Union headquarters at Winnipeg, Man., on May 21 called the 15,000 union men to strike in the morning in sympathy with the city employees now on strike. This, added to the 12,000 already out, paralyzes the city's trade. The cars of the Winnipeg Electric Railway stopped on May 21 for the duration of the strike. The city firemen are all out.

Increase in Pay for Oakland Men.—The San Francisco-Oakland Terminal Railways, Oakland, Cal., has increased the pay of the conductors and motormen. For the first six months the employees will receive 33 cents an hour instead of 30 cents, for the second six months 35 cents instead of 32, and for the third six months 36 cents instead of 34 cents as at present. No increase will be granted for the fourth six months or thereafter.

Ninth Chicago Traction Report Out.—The ninth annual report of the Board of Supervising Engineers, Chicago Traction, has just been issued. This covers the year ended Jan. 31, 1916. It contains the financial exhibits of that year for the Chicago Surface Lines, and also a reprint of the document previously issued in reference to an investigation of traffic conditions and electric railway service in Chicago. This was abstracted in the ELECTRIC RAILWAY JOURNAL of July 29, 1916; Aug. 5, 1916, and Aug. 12, 1916. The issuance of the eighth report of the board was noted in the issue of Jan. 19.

Will Meet Commission Order.—S. B. Way, vice-president and general manager of the Milwaukee Electric Railway & Light Company, Milwaukee, Wis., has announced that the company will not oppose or appeal from the recent decision of the Wisconsin State Industrial Commission fixing the conditions under which women may be employed on electric railway cars in that State. Mr. Way is reported to have said that the company had its day in court during the hearing before the commission, which decided against it. The general terms of the commission ruling in this case were noted recently in the ELECTRIC RAILWAY JOURNAL.

Resumption of Franchise Resettlement Sessions.—It is understood that the three committees from Oakland, Berkeley and Alameda, appointed to consider the resettlement franchises for the San Francisco-Oakland Terminal Railways, formed themselves into a joint committee of nineteen and have had many meetings. It is said that the labors of this joint committee are about at an end and that at a very near date a perfected resettlement franchise will be reported to the Councils of the three cities for appropriate action in accordance with the provisions of the three charters, which provisions were favorably passed upon by the voters at elections.

Wage Award Accepted.—A new wage scale, drawn up by a board of arbitration, was accepted on May 16 as satisfactory by men and the Steubenville, East Liverpool & Beaver Valley Traction Company. Under the new contract, which is for one year, beginning May 1, 1918, the first-year conductors and motormen in passenger service will receive 38 cents an hour; second-year men, 40 and 42 cents an hour, and third-year men and thereafter, 45 cents. Conductors and motormen for freight service will receive 50 cents an hour. Under the old scale the men received 30 cents an hour for first and second year service and 32 cents an hour for service after the second year.

Details of Charlotte Wage Advance.—The new schedule of pay for motormen and conductors of the Southern Public Utilities Company, Charlotte, N. C., effective from May 1 and to which brief reference was made in the ELECTRIC RAILWAY JOURNAL of May 25, page 1024, is as follows: First three months, 18 cents; war bonus, 2 cents. Second three months, 19 cents; war bonus, 2 cents. Second six months, 20 cents; war bonus, 3 cents. Second year, 21 cents; war bonus, 3 cents. Third year, 22 cents; war bonus, 3 cents. Fourth year, 23 cents; war bonus, 4 cents. Fifth year, 25 cents; war bonus, 5 cents. The increases are made to aid the men in meeting the increased cost of living.

Women Employees Strike.—Women conductors on the cars of the Wisconsin Gas & Electric Company in Kenosha, Wis., went on strike on May 22 in what is believed to be the first strike of its kind in this country in which women employees have participated. The women followed the lead of men who walked out when their demand for an increase of 10 per cent in their wages was refused. The company recognized the changed economic conditions but said an increase could not be made if the company was to meet operating expenses. May 24 the company paid off the twenty-four conductorettes and sixteen motormen in full and they turned in company property in their possession. Up to May 27 service had not been resumed.

Labor Unrest at Scranton.—The trainmen in the employ of the Scranton (Pa.) Railway went on strike on May 25. The men say they will not return unless they are paid 40 cents an hour. On May 27 conductors, motormen and track laborers of the Lackawanna & Wyoming Valley Railroad, operating between Scranton and Wilkes-Barre, issued an ultimatum to the company that unless the men receive an increase of wages of 30 per cent they will go on strike. The company has offered the men 10 per cent. Employees of the Northern Electric Street Railway, operated under lease by the Scranton & Binghamton Traction Company, have made demands upon the management for a wage adjustment. It was expected in this case that a conference would be held on May 28.

Appeal to City on Wage Request.—Surface and elevated railway employees appealed to the City Council of Chicago, Ill., on May 20 to approve of their demands for higher wages. The Council concurred in a belief that the men are entitled to more pay, but took no other action except to refer the matter to the committee on local transportation. Alderman H. D. Capitain, chairman of the local transportation committee, asked the Council to "go slow" on the wage question. He said the traction ordinances now before that body do not provide for the city having any voice on it. Alderman Thomas F. Byrne insisted that the Council go on record as favoring an increase for the car men. The Council did this unanimously. Details of the proposed wage scales were reviewed in the issue of the ELECTRIC RAILWAY JOURNAL for May 25, page 1022.

Programs of Meetings

National Safety Council

The annual congress and safety exhibition of the National Safety Council will be held at the Hotel Statler, St. Louis, Mo., Oct. 14 to 16. Several sectional programs are now complete. It is expected that many innovations will be introduced this year. W. H. Cameron, Continental & Commercial Bank Building, Chicago, Ill., is general manager of the council.

Pennsylvania Street Railway Association

The annual meeting of the Pennsylvania Street Railway Association will be held at the Hotel Adelphia, Philadelphia, Pa., on June 7 at 2 p.m.

By reason of the exigencies of the war and the abnormal conditions created thereby this will be a short session; nevertheless there are some questions of vital interest to the railway and the affiliated organizations which will be up for discussion and it is the purpose to outline policies of action in regard to them.

The usual dinner will be served at 7 p.m.

New York Electric Railway Association

The thirty-sixth annual meeting of the New York Electric Railway Association will be held at Hotel Champlain, Bluff Point, N. Y., on June 22. The association is to deviate somewhat this year from the plan of its program in previous years. There will be no discussion of technical papers. Instead there will be a general discussion of the financial conditions of the properties, etc., by the representatives of the railways, banking interests and manufacturers. William Howard Taft, Ex-President of the United States, and William H. Edwards, Collector of Internal Revenue, Second District, New York, are to be the speakers at the supper which will take the place of the annual banquet.

Financial and Corporate

D. & H. Lines Burdened

Electrics in 1917 Showed Decreased Operating Income—United Traction Deficit \$95,000

The adverse conditions which prevailed in the preceding three years not only continued during 1917 for the allied electric lines of the Delaware & Hudson Railroad, but were greatly augmented by the increased cost of labor and supplies. According to the 1917 annual report of the parent company, the results of the electric railway subsidiaries in the last year were as follows:

UNITED TRACTION NET OPERATING INCOME \$209,536

The operating revenues of the United Traction Company, Albany, N. Y., for the calendar year 1917 amounted to \$2,458,848, the operating expenses to \$2,055,196, and the net operating income to \$209,536. These data show an increase in operating receipts of \$14,791 over 1916 and \$94,136 over 1915, but the figures are still \$40,502 below the gross of 1914 and \$87,774 below 1913. The operating expenses of 1917 increased \$83,524 over 1916; \$110,935 over 1915; \$297,027 over 1914, and \$451,135 over 1913. The net operating income was \$70,414 less than in 1916; \$5,997 less than in 1915; \$312,081 less than in 1914, and \$529,815 less than in 1913. The net deficit for the year, after paying fixed charges, was \$95,356.

The operating revenue of the Hudson Valley Railway, Glens Falls, was \$703,073, the operating expenses \$503,562 and the operating income \$157,334. In comparison with 1916 the operating revenue increased \$29,075; this was an

increase over 1915 of \$90,030, and over 1914 of \$39,709. Operating expenses increased \$31,439 over 1916; \$29,011 over 1915, and \$40,046 over 1914. Net operating income was \$3,721 less than 1916, but exceeded 1915 by \$59,883, and was less than 1914 by \$2,882. The net deficit from railway operations for the year was \$30,137 greater than in 1916 but was less than in 1915 by \$54,106.

The operating revenues of the Plattsburgh (N. Y.) Traction Company were \$38,878; the operating expenses, \$28,417, and the operating income, \$9,021. The gross receipts of 1917 were in excess of those of 1916 by \$994, 1915 by \$7,682 and 1914 by \$5,706. Operating expenses exceeded 1916 by \$4,276, 1915 by \$6,983 and 1914 by \$6,738. Net operating income decreased \$3,361 below 1916, exceeded 1915 by \$450, and was less than 1914 by \$1,378. The net income for the year decreased \$3,207 below 1916, but exceeded 1915 by \$816, and was less than 1914 by \$1,241.

TROY & NEW ENGLAND OPERATING INCOME \$9,107

The operating revenues of the Troy & New England Railway, Troy, N. Y., amounted to \$29,824; the operating expenses, \$19,315; the operating income, \$9,107. The gross receipts decreased \$4,435 under 1916; \$2,764 under 1915, and \$5,333 under 1914. Operating expenses decreased \$4,279 as compared with 1916, and \$5,054 as compared with 1915, but exceeded 1914 by \$367. Net operating income decreased \$131, but exceeded 1915 by \$2,143, and was less than 1914 by \$5,775. The net deficit of the year increased \$521, but was less than 1915 by \$1,669, and in excess of 1914 by \$6,190.

Electric Railway Statistics

Returns From 7501 Miles of Line for February Show Net Income Fell Off 12.71 Per Cent

A comparison of electric railway statistics for February, 1918, and the corresponding month of 1917, made by the information bureau of the American Electric Railway Association, indicates that the net earnings and operating income of electric railways is still badly affected, in the East.

Data for February, representing 7501 miles of railway, figured on the per mile of line basis, show an increase in operating revenues of 3.17 per cent, an increase in operating expenses of 11.02 per cent and a decrease in net earnings of 12.71 per cent. Data representing approximately 75 per cent of this mileage indicate a decrease in operating income of 19.84 per cent, an improvement over the previous month.

The returns from the city and inter-urban electric railways, as shown in detail in the accompanying table, have been classified according to the following geographical grouping: Eastern District—East of the Mississippi River and north of the Ohio River. Southern District—South of the Ohio River and east of the Mississippi River. Western District—West of the Mississippi River.

The three groups all show a considerable increase in operating expenses, particularly the Eastern. On the other hand, the largest increase in revenue, one of but 6.27 per cent, occurred in the Southern district. This district as a whole makes the best showing, though its returns are far from being satisfactory. Returns for the Eastern group indicate a slight increase in revenues and a decrease in net of 37.78 per cent.

The operating ratio of all groups has increased, particularly that of the Eastern district, which increased from 68.09 per cent in 1917 to 74.48 per cent in 1918. The operating ratio for the country as a whole has gone from 66.91 to 72 per cent.

COMPARISON OF REVENUES AND EXPENSES OF ELECTRIC RAILWAYS FOR FEBRUARY, 1918 AND 1917

Account	United States				Eastern District				Southern District				Western District			
	Amount, February, 1918	Per Mile of Line			Amount, February, 1918	Per Mile of Line			Amount, February, 1918	Per Mile of Line			Amount, February, 1918	Per Mile of Line		
		1918	1917	% Increase Over 1917		1918	1917	% Increase Over 1917		1918	1917	% Increase Over 1917		1918	1917	% Increase Over 1917
Operating revenues.....	12,699,574	\$1,693	\$1,641	3 17	\$8,129,041	\$1,595	\$1,551	2 84	\$1,192,267	\$1,390	\$1,308	6 27	\$3,378,266	\$2,188	\$2,113	3 55
Operating expenses.....	9,141,853	1,219	1,098	11 02	6,058,559	1,188	1,056	12 50	715,819	834	761	9 59	2,367,475	1,533	1,409	8 80
Net earnings.....	3,557,721	474	543	12 71	2,070,482	407	495	13 78	476,448	556	547	1 65	1,010,791	655	704	16 96
Operating ratio, per cent.....	1918, 72.00; 1917, 66.91				1918, 74.48; 1917, 68.09				1918, 60.00; 1917, 58.18				1918, 70.06; 1917, 66.68			
Average number of miles of line represented.....	1918, 7,501; 1917, 7,391				1918, 5,098; 1917, 5,055				1918, 858; 1917, 803				1918, 1,544; 1917, 1,534			

COMPANIES REPORTING TAXES

Operating revenues.....	\$8,833,208	\$1,615	\$1,576	2 47	\$5,210,443	\$1,405	\$1,369	2 63	\$599,570	\$1,588	\$1,466	8 32	\$3,023,195	\$2,181	\$2,157	1 11
Operating expenses.....	6,601,983	1,207	1,096	10 13	4,111,167	1,109	994	11 57	356,083	943	807	16 85	2,134,733	1,540	1,445	6 57
Net earnings.....	2,231,225	408	480	15 00	1,099,276	296	375	21 07	243,487	645	659	2 12	888,462	641	712	19 97
Taxes.....	619,551	113	112	0 89	376,611	102	100	2 00	50,896	135	127	6 30	192,044	139	142	2 11
Operating income.....	1,611,674	295	368	19 84	722,665	194	275	29 45	192,591	510	532	4 14	696,418	502	570	11 93
Operating ratio, per cent.....	1918, 74.74; 1917, 69.54				1918, 78.93; 1917, 72.61				1918, 59.38; 1917, 55.05				1918, 76.61; 1917, 66.99			
Average number of miles of line represented.....	1918, 5,471; 1917, 5,414				1918, 3,708; 1917, 3,666				1918, 378; 1917, 372				1918, 1,386; 1917, 1,377			

† Decrease.

No Power Over Depreciation Rate

Highest New York Court Annuls 20 per Cent Maintenance and Depreciation Order of First District Commission— Authority Not Granted by Statute

The Public Service Commission for the First District of New York has no authority to require an electric railway to reserve a definite percentage of its revenues for maintenance and depreciation. This is the final outcome of a legal battle which has been waging since such an order was promulgated in February, 1912, in connection with the reorganization of the old Metropolitan Street Railway in New York City.

The successor company, the New York Railways, was required, before paying any interest on its income bonds or dividends on its stock, to set aside each month 20 per cent of its gross operating revenue for maintenance and depreciation and, if this was not expended during the month, to credit the unexpended amount to an account called "Accrued Amortization of Capital."

The company objected to the order on the grounds that the commission was without power to make it; that the required reservation was not always needed in full for the purposes designated and that the directors were the proper persons to determine the depreciation rate and amount of reserve. On Jan. 18, 1918, the Appellate Division of the Supreme Court in certiorari proceedings affirmed the order, with the finding that the regulatory law had conferred full power upon the commission to regulate the methods of public service corporations.

APPELLATE DIVISION OVERRULED

The decision of the lower court, however, was reversed on May 14 by the highest court in the State, the Court of Appeals. The opinion of this court states that the commission bases its authority to make the order upon Section 52 of the public service commission act, which provides for the establishment of a system of accounts. In regard to this the court, with the unanimous approval of the six judges sitting on the case, says:

"Section 52 was plainly intended to make the method of accounting by these corporations uniform so that the accounts could be readily comprehended by those required to examine the same. By establishing a system of accounts the corporations were required to show under particular heads what they had done. It was not to regulate the management of their finances but to show what the management was.

"The other sections of the act clearly do not in express terms authorize the commission to require the creation of a reserve fund to renew the plant when the same shall be worn out or shall become obsolete. It is not pretended by anyone that they do.

"The power of the Public Service Commission is extensive, and the act creating the commission should be construed in the same spirit in which it was enacted. Still, when a particular power

is exercised by the commission or is claimed for it, that power should have its basis in the language of the statute or should be necessarily implied therefrom. The assertion of authority under review here is outside and beyond the statute.

"The decision in *Quinby vs. Public Service Commission* (223 N. Y. 244) is controlling here and requires us to hold that the Public Service Commission had no authority to make the order requiring the company to reserve 20 per cent of its gross operating revenue for maintenance and depreciation and for the creation of the amortization of capital account."

MORE THAN \$3,000,000 ACCUMULATED

As of June 30, 1917, the account for "Accrued Amortization of Capital" amounted to \$3,127,258, equivalent to more than 10 per cent on the outstanding adjustment income 5 per cent bonds. Although interest on these bonds is non-cumulative, the bondholders assert that the fund should be distributed among them. No interest payment on these securities has been made since 1916.

Accounting Conference

Railway Men Object to Any Definite Depreciation Percentages in New Tentative Classification

The Public Service Commission for the Second District of New York on May 22 discussed with representatives of various electric railway corporations from all parts of the State a proposed new accounting classification for electric railway lines. The conference was called for the purpose of ascertaining the views of corporation accounting officials as to differences between the proposed system and the classification now in force. The new tentative classification was briefly described in the *ELECTRIC RAILWAY JOURNAL* of Feb. 2, page 228.

No serious objections were made to the classification as a whole, but the requirement that definite percentages of property costs should be set aside in a depreciation reserve was opposed. The electric railway representatives took the ground that the amount to be set aside to provide for retirements and the method of determining it were matters for the directors of the corporations to decide and not the commission.

M. S. Decker of Albany, representing those present at the hearing, objected to the requirement that a depreciation reserve be created and maintained by charges to operating expenses for depreciation equal to a fixed percentage of the cost or book value of depreciable property, based upon the probable life in service of the different classes of property. Mr. Decker said that unless peculiar conditions were shown, 2 per

cent upon the average total cost would be regarded under the new classification as the minimum percentage to represent depreciation accruals, with 5 per cent as the maximum for way and structures and 10 per cent for equipment. He explained that the Court of Appeals, in the recent case of the *New York Railways vs. the Public Service Commission for the First District* (abstracted in another column), has held that the public service commission law does not confer power upon the commission to order the use of definite depreciation rates.

Chairman Hill said that the commission would consider the decision of the Court of Appeals and various suggestions which were made, and that changes would be formulated as the result of the hearing. Another conference will then be called.

Northern States Railway Earnings Drop

The gross earnings of the Northern States Power Company, Chicago, Ill., for the year ended Dec. 31, 1917, amounted to \$7,154,508, an increase of \$1,067,355 over the preceding year. The operating expenses showed heavy increases, but the year was closed without any loss in net earnings as compared to 1916. In view of the customary allowances for depreciation and amortization, aggregating \$575,000, it was necessary to draw on the accumulated surplus for \$240,970 of the common stock dividends.

The gross earnings from electric railway operation in the four communities served by this company were \$89,976, or 1.26 per cent of the total gross in 1917, as compared to \$102,067 or 1.68 per cent in 1916. The railway gross, both as to amount and as to percentage, was the smallest since 1911, inclusive. The railway net earnings in 1917 amounted to \$8,429 or 0.25 per cent of the total net, as compared to \$25,075 or 0.75 per cent in 1916. The contrast in the net results between 1917 and the years preceding 1916 can be sufficiently judged from the fact that 1916 was the poorest year since 1911.

On March 25, 1918, the total sales of preferred stock to patrons of the company amounted to 5425, aggregating \$2,774,000 par value of stock. Since Jan. 1 the number of new shareholders each month and the volume of preferred stock sold have greatly exceeded the results of any preceding period. The average number of shares is seven.

Latest Report in New York

The eleventh annual report of the Public Service Commission, Second District of New York, which has just been issued in bound form, contains some electric railway financial data, which with allowances for changes in the fiscal year and other comparative points, indicate the existence of certain suggestive tendencies. The revenues and the expenses both increased somewhat in the calendar year 1916 as compared with the year ended June 30, 1916. The railway

operating revenues at \$34,086,000 represented an increase of 4.3 per cent as compared to those for the fiscal year ended June 30, 1916, while the railway operating expenses at \$22,364,000 were an increase of 4.9 per cent. The railway tax accruals amounted to \$2,105,000, an increase of 5.6 per cent, and although interest charges decreased 1.1 per cent, other deductions from gross income increased 6.7 per cent. The result in 1916 was net income of \$1,882,000, an increase of 13.4 per cent over that of the year ended June 30, 1916, but a decrease of 36.5 per cent from the results in the year ended June 30, 1907, the first year of the series recorded. The dividends at \$3,123,000 were larger than net income.

The total of fares and transfers recorded (669,895,000) was greater in the year ended Dec. 31, 1916, than in any previous year, but the total revenue car mileage (105,847,000) was slightly less than for the year ended June 30, 1914, which was the highest year of the series. The operating ratio for the calendar year 1916, at 65.76 per cent, was the highest since 1909.

Direct Aid for St. Louis

War Finance Corporation Loans \$3,235,000 for Six Months—Brooklyn and Tennessee Lines Ask Help

The War Finance Corporation on May 28 announced the approval of a direct loan to the United Railways, St. Louis, Mo., subject to the approval by counsel of the legality of the issue and all proceedings, of \$3,235,000 for six months from June 1, 1918, at a 7 per cent rate. The loan is secured by the entire issue of first and underlying mortgage bonds of the Union Depot Railroad, plus \$800,000 in Liberty Bonds.

This company has already secured from the Public Service Commission of Missouri the right to establish a 6-cent fare, which will become effective on June 1. Conditions surrounding the application were such, in the opinion of the directors of the corporation, as to bring it within the provisions of the act covering advances in exceptional cases.

A conference was held in Washington on May 28 between T. S. Williams, president Brooklyn (N. Y.) Rapid Transit Company, and the War Finance Corporation in regard to a grant of funds to meet the \$57,735,000 of notes maturing on July 1. The decision of the corporation has not been announced.

The Tennessee Railway, Light & Power Company, Chattanooga, Tenn., recently made application to the War Finance Corporation at Washington for a loan to provide for the payment of \$2,500,000 of 5 per cent gold coupon notes of the company which matured on June 1. Inasmuch as it was not certain the company could secure action in time to provide for the payment of the notes at maturity, the holders were requested not to present the notes for payment until the decision of the War Finance Corporation is reached.

Warning About Direct Federal Financing

Government Seeks to Remove General Misconception—Except in Unusual Cases, Utility Financing Must Be Done Through Companies or Banks

The War Finance Corporation has already found the heaviest end of its business to be the consideration of applications for direct loans. The pressure for such loans has become so great that the directors have deemed it necessary to issue a statement to the effect that the financing of utilities and other war industries should be handled by the companies themselves or through the banks. The government will directly finance local utilities only in exceptional circumstances, making such a step a matter of national importance.

NO GENERAL DIRECT FINANCING

The statement, which was issued on May 28 and should be read in connection with one of May 24 appearing on page 1041 of this issue, follows in part:

"The resources of the War Finance Corporation are not intended to be loaned directly to war industries, unless in an exceptional case, but only indirectly through the banks.

"In the progress of the bill through Congress advances under the exceptional cases clause were further restricted as to security and amount—thus indicating the intention of Congress that the borrower must show some exceptional circumstances clearly entitling him to relief. In no circumstances was it the intention that the corporation should make loans except upon adequate security.

"The corporation was organized as an instrumentality to which the banks of the country could resort to obtain accommodation on advances made by them to war industries upon a character of security not available for rediscount at a Federal Reserve Bank. It is hoped that as need arises the banks of the country will avail themselves of the facilities thus afforded, so that they may be amply able to extend credit to those industries of the country which are necessary or contributory to the prosecution of the war.

A WORD TO THE UTILITIES

"From the applications received by the War Finance Corporation there seems to be an impression in certain quarters that the corporation was specially designed to provide funds for meeting maturing obligations, particularly those of public utility companies. The law expressly provides that the corporation shall not make direct advances to provide funds to meet such maturing obligations, except possibly in some rare case which could clearly be brought within the exceptional cases clause. Of course, the corporation will stand ready to lend its assistance to banks and bankers in proper cases where they have themselves made advances in war industries, whether for the purpose of meeting maturing obligations or otherwise, and direct ad-

vances in deserving cases that come clearly within the provisions of the law.

"Holders of maturing obligations, whether of public utilities or of other concerns which may find themselves unable, because of temporary conditions, to meet their commitments punctually should consider whether, in the public interest as well as their own, they should not co-operate by consenting to reasonable renewals. Public utility companies particularly, in co-operation with the communities in which they operate, should have the opportunity of adjusting themselves to the changed conditions brought about by the war.

"No machinery has been specially provided for direct purchases of obligations of the public utilities, whether to meet maturities or otherwise, either through the War Finance Corporation or through any other governmental agency. The situation of these public utility companies is, therefore, quite different from that of the railroads, where Congress has made specific provision for the purchase of their securities by the government in certain exigencies. Yet even the railroads are expected, wherever possible, to meet their own maturities and to pay what the money is worth to accomplish that end.

UTILITIES AND RAILROADS DIFFER

"It must be remembered that the railroads are under federal operation, and that their rates are subject to federal control, and that the government therefore is in a position to see to it that their charges shall be sufficient to meet the cost of the service rendered. In the case of the public utilities, however, neither their operation nor their rates are subject to federal control. Whenever the charges do not amount to adequate compensation for the services rendered, relief can be had only through the appropriate local authorities, and time is essential to enable the companies and the communities in which they operate to reach a satisfactory solution of this important problem.

"It is not a problem which can be disposed of by having the federal government through the War Finance Corporation assume the burden of financing the operations of these local companies, except in exceptional circumstances which may make it a matter of national importance that advances should be made.

"The local authorities will no doubt respond as promptly as possible, in cases where relief is needed because of changed conditions, as it is clear that the soundness and the efficiency of public utilities are intimately connected with a vigorous and successful prosecution of the war."

Three cases pending are referred to elsewhere on this page.

Financial News Notes

Cleveland April Statement Shows Small Surplus.—The operating report of the Cleveland (Ohio) Railway for April was submitted to the board of directors on May 23. It shows a surplus of \$3,757. As the maximum rate of fare was in force only twenty days of the month, it is estimated that the surplus for June will probably be around \$5,000. This, however, will not be sufficient to take care of the increase in the wages of motormen and conductors which is expected as a result of arbitration.

Tacoma Municipal Railway Results.—H. Roy Harrison, Commissioner of Public Works of Tacoma, Wash., is working out a plan, in co-operation with the Council, for the refunding of the original municipal railway bonds to care for the development which is necessary as a result of the enormous increase in traffic to the tideflats. Tacoma plans to purchase ten more cars for its tideflats line. A statement of C. D. Atkins, retiring Commissioner of Public Works, shows that the city line has been just about breaking even for the last six months.

United Railroads Report Shows Net Loss.—The report of the United Railroads, San Francisco, Cal., for the year ended Dec. 31, 1917, recently filed with the California Railroad Commission, shows that the net loss sustained by the company for the year, after charging off interest, taxes, etc., was \$1,566,654. The total operating revenue is shown as \$6,355,531, or a decrease of \$965,398 from

the previous year. Operating expenses are shown to be \$5,594,575, or an increase of \$788,412 over the previous year. Net revenue from railroad operations is \$760,956, a decrease of \$1,753,810. Figures for accidents total twenty-three killed and 585 injured.

Deposit of Southern Ohio Bonds Asked.—R. M. Stinson, chairman of a bondholders' protective committee, has addressed a letter to holders of the first consolidated mortgage 5 per cent bonds of the Southern Ohio Traction Company, Hamilton, Ohio, asking them to deposit their holdings with the Cleveland Trust Company, Cleveland, Ohio, or the Girard Trust Company, Philadelphia, for the protection of their rights. The letter states that default has been made in the payment of interest on the bonds due on May 1, 1918.

Partial Abandonment.—The last car on the Bethel line of the Interurban Railway & Terminal Company, Cincinnati, Ohio, ran from Bethel to its terminus at Coney Island recently and the work of tearing up the tracks was then begun. The road was placed in operation in 1902, but it did not pay and on petition of C. M. Leslie and Charles S. Thrasher, receivers of the Interurban Railway & Terminal Company, of which system it is a part, the State Utilities Commission gave permission to discontinue operation of the road and Common Pleas Judge Cushing authorized the receivers to dispose of the equipment.

\$2,000,000 of New Milwaukee Electric Notes.—A syndicate composed of Spencer Trask & Company, Harris, Forbes & Company, New York, N. Y., Coffin & Company, Boston, Mass., Wisconsin Trust Company, and the First National Bank, Milwaukee, Wis., has purchased \$2,000,000 two-year 7 per cent secured notes of the Milwaukee Electric Railway & Light Company,

dated May 1, 1918, and maturing May 1, 1920. A public offering of the notes is now being made at 98½ and interest, yielding 7.80 per cent. The notes are a general obligation of the Milwaukee Electric Railway & Light Company, and are additionally secured by deposit to the trustee of \$3,000,000 general and refunding mortgage 5 per cent bonds.

Interborough Dividend Reduced.—The directors of the Interborough Rapid Transit Company, New York, N. Y., on May 28 cut the regular dividend in half, declaring a quarterly dividend of 2½ per cent instead of the previous dividend of 5 per cent, payable on July 1 to stock of record of June 20. That is, the dividend rate is reduced from 20 per cent per annum to 10 per cent per annum. At the same time, "in view of the action taken by the Interborough Rapid Transit Company," it was announced, directors of the Interborough Consolidated Corporation suspended "for the present" the usual quarterly dividend of 1½ per cent upon the preferred stock of that corporation. The statement of the Interborough Rapid Transit Company said that "on account of war conditions and the advisability of conserving the cash resources of the company, the directors deem it inadvisable at the present time to declare the full dividend." In 1910 9 per cent was paid; in 1911, 10¼ per cent; in 1912, 15 per cent; in 1913, 12 per cent; in 1914, 15 per cent; in 1915, 22½ per cent, and last year and the year before, 20 per cent. The Interborough Consolidated Corporation has paid 6 per cent on its preferred stock since its organization as the holding company in 1915. The preferred stock of the Interborough Consolidated, is non-cumulative. Last year its earnings, derived from Interborough Rapid Transit dividends, amounted to 7.14 per cent on its outstanding preferred stock.

Electric Railway Monthly Earnings

BATON ROUGE (LA.) ELECTRIC COMPANY

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Mar., '18	\$20,321	*\$10,962	\$9,359	\$3,917	\$5,442
1m., Mar., '17	18,277	*9,637	8,640	3,525	5,115
12m., Mar., '18	236,118	*123,837	112,281	43,463	68,818
12m., Mar., '17	218,061	*102,432	115,629	42,212	73,417

BROCKTON & PLYMOUTH STREET RAILWAY, PLYMOUTH, MASS.

1m., Mar., '18	\$7,978	*\$9,100	†\$1,122	\$1,372	†\$2,494
1m., Mar., '17	8,413	*9,858	†1,445	1,167	†2,612
12m., Mar., '18	121,903	*123,455	†1,552	15,350	†16,902
12m., Mar., '17	125,302	*114,195	11,107	13,446	†2,339

CLEVELAND, PAINESVILLE & EASTERN RAILROAD, CLEVELAND, OHIO

1m., Mar., '18	\$42,252	*\$27,210	\$15,042	\$11,421	\$3,621
1m., Mar., '17	38,254	*24,322	13,932	11,389	2,543
3m., Mar., '18	118,422	*81,683	36,739	34,062	2,677
3m., Mar., '17	107,053	*68,047	39,006	34,261	4,744

EASTERN TEXAS ELECTRIC COMPANY, BEAUMONT, TEX.

1m., Mar., '18	\$87,459	*\$49,131	\$38,328	\$13,037	\$25,291
1m., Mar., '17	76,062	*43,077	32,985	9,913	23,072
12m., Mar., '18	961,980	*535,977	426,003	146,715	†305,356
12m., Mar., '17	862,126	*462,488	399,638	110,502	289,136

EL PASO (TEX.) ELECTRIC COMPANY

1m., Mar., '18	\$107,532	*\$68,350	\$39,182	\$6,588	\$35,594
1m., Mar., '17	108,183	*67,849	40,334	5,114	35,220
12m., Mar., '18	1,273,511	*814,316	459,195	70,951	388,244
12m., Mar., '17	1,163,578	*713,531	450,047	60,593	389,454

JACKSONVILLE (FLA.) TRACTION COMPANY

1m., Mar., '18	\$78,899	*\$51,080	\$27,819	\$15,899	\$11,830
1m., Mar., '17	61,510	*38,338	23,172	15,777	7,395
12m., Mar., '18	733,980	*501,123	232,857	190,964	41,893
12m., Mar., '17	643,882	*431,016	212,866	185,832	27,034

LAKE SHORE ELECTRIC, RAILWAY, CLEVELAND, OHIO

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Mar., '18	\$164,940	*\$121,542	\$43,398	\$36,227	\$7,170
1m., Mar., '17	132,542	*90,386	42,156	34,369	7,787
3m., Mar., '18	447,657	*348,220	99,437	108,650	†9,213
3m., Mar., '17	380,290	*273,502	106,788	103,125	3,663

NORTHERN TEXAS ELECTRIC COMPANY, FORT WORTH, TEX.

1m., Mar., '18	\$299,172	*\$173,024	\$126,148	\$28,238	†\$107,493
1m., Mar., '17	199,545	*114,173	85,372	29,182	56,190
12m., Mar., '18	2,839,727	*1,593,416	1,246,311	346,484	†957,327
12m., Mar., '17	2,000,099	*1,188,249	811,850	347,923	463,929

PADUCAH TRACTION & LIGHT COMPANY, PADUCAH, KY.

1m., Mar., '18	\$25,848	*\$17,274	\$8,574	\$8,070	\$504
1m., Mar., '17	25,394	*20,529	4,865	7,278	†2,413
12m., Mar., '18	303,213	*230,241	72,972	92,558	†19,586
12m., Mar., '17	311,898	*226,956	84,942	86,404	†1,462

PENSACOLA (FLA.) ELECTRIC COMPANY

1m., Mar., '18	\$37,035	*\$23,787	\$13,248	\$8,136	\$5,112
1m., Mar., '17	25,220	*15,999	9,221	7,818	1,403
12m., Mar., '18	380,689	*229,982	150,707	94,337	56,370
12m., Mar., '17	289,452	*165,299	124,153	92,764	31,389

SAVANNAH (GA.) ELECTRIC COMPANY

1m., Mar., '18	\$94,377	*\$64,355	\$30,022	\$24,944	\$5,078
1m., Mar., '17	77,252	*52,672	24,580	24,077	503
12m., Mar., '18	1,019,522	*683,811	335,711	293,366	42,345
12m., Mar., '17	855,893	*566,586	289,307	284,792	4,515

TAMPA (FLA.) ELECTRIC COMPANY

1m., Mar., '18	\$92,931	*\$50,945	\$41,986	\$5,086	\$36,900
1m., Mar., '17	89,765	*46,954	42,811	4,373	38,438
12m., Mar., '18	995,353	*573,696	421,657	58,550	363,107
12m., Mar., '17	980,349	*534,499	445,850	52,328	393,522

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

Traffic and Transportation

P. S. C. Hearing Continued

President McCarter Examined in Regard to Various Details of Railway Company's Petition

At the continued hearing on May 16, 17 and 20 before the Board of Public Utility Commission of New Jersey on the application of the Public Service Railway, Newark, N. J., for increased revenues, President Thomas N. McCarter was examined in regard to various details of the company's petition. Marshal Van Winkle, counsel for the municipalities, questioned him in regard to the salaries paid by his company. Mr. McCarter said that the total was \$130,000 or 0.65 of 1 per cent of the company's gross revenues, and that he would supply the details to the commission in confidence. He did not believe that it was to the public's interest and certainly not to the company's to have the information spread broadcast.

PRESIDENT OPPOSES POST MORTEM

Most of the adjourned hearings on May 22 and 23 were taken up with the presentation of testimony by an accountant for the municipalities in the opening of their direct case. It was the opinion of this witness that the company is overcapitalized and that excessive rentals must be paid under old leases. Mr. McCarter objected to this class of testimony. After urging the urgency of relief, he read into the record a formal statement, in part as follows:

"The proof offered by the other side can only be intended to lay the foundation for an effort to persuade this commission to disregard consolidation agreements and leases, all of which were made more than ten years ago. Every one of these agreements was made according to the law as it stood at the time. They have been on record subject to inspection, and no attack on any has ever been made or suggested in any court having jurisdiction to pass upon their validity, and, surely, the commission has no jurisdiction to do so.

PRESENT AN EMERGENCY CASE

"If the proposed evidence is offered to show that the underlying and pre-existing companies were overcapitalized, we reply that this fact, even if true, is entirely irrelevant here, because Public Service Railway is not asking for increase of rates in order to pay interest or dividends on securities that never should have been issued, if any such are outstanding.

"This is not a rate case in the ordinary sense, but, if time permitted, the company would not object to having it so treated. It is clearly impossible to do so within the time that relief must be granted. The evidence in this case shows beyond doubt that the property of the electric railway is worth much

more than \$100,000,000, excluding the value of its franchise. The amount of value mentioned is shown by the very careful appraisal made by Dean Cooley, and the money expended on the property since that appraisal was made. By adding to the value so fixed the cash actually expended for the cost of establishing the business of the company and the value of property of the company not appraised by Dean Cooley, this value is clearly shown. The income of the company, if the increase asked for in the pending application should be allowed, would not give the company 8 per cent on more than \$81,000,000, which is certainly much less than the value of its property."

The chief witness for the cities on May 24 and 27 was Delos F. Wilcox, of New York, who expressed the belief that the company ought to seek the consent of the individual municipalities to a modification of the franchise fare provisions. He favored the continued use of free transfers, believing that the transfer passenger almost always gets poorer service than straight cash passengers. He also advocated the advisability of the "one city one fare" idea as a matter of public policy.

Indiana Company's Strong Plea

In support of its petition for an increase in interurban passenger rates from 2 cents to 2½ cents a mile, the Chicago, South Bend & Northern Indiana Railway introduced evidence before the Public Service Commission of Indiana to show that for two years past the interest on the bonds of the company had not been paid out of earnings, but from funds provided by the directors of the company. It was brought out at the hearing before the commission that trucks and passenger automobiles are greatly reducing the revenue of the company.

H. O. Garman, engineer of the Public Service Commission, testified that his valuation of the property of the company would be \$4,390,915 new, and that its present value is \$3,816,203. Representatives of the company stated that the valuation of \$3,816,203 was much too low, but that they would be willing to accept it for rate-making purposes, because they could show good reason for an increased rate of fare, even at that valuation.

Evidence introduced by Samuel T. Murdock, secretary of the company, showed that \$5,774,000 in actual cash had been put into the property. Mr. Murdock testified that no money had been paid out for dividends; that nothing had been paid in salaries to directors, and that the directors paid their own traveling expenses.

No changes are being asked in the city fare in South Bend.

State-Wide Appeal in South

Public Utilities in Tennessee Put Before the Governor Their Case for Relief from Present Burdens

The officers of the public utilities of Tennessee who called upon Governor Tom C. Rye recently represented the state committee appointed by the national committee on public utilities. The members present were T. H. Tutwiler, president of the Memphis Street Railway, chairman; S. E. DeFrese, manager of the Chattanooga Gas Company, secretary, and representatives of other public utility corporations of the State.

GOVERNOR ASKED TO INQUIRE

As stated previously very briefly in the *ELECTRIC RAILWAY JOURNAL*, the object of the conference was to request Governor Rye to take official cognizance of the conditions under which public utility corporations of the State are now operating, and that he officially ask the co-operation of the public in helping these concerns to maintain their maximum efficiency in line with President Wilson's request for unrestrained co-operation by all the public of the United States with these institutions.

Besides addresses by Mr. Tutwiler and Mr. DeFrese, short talks were made by Col. A. M. Shook, Percy Warner and Col. H. M. Harvey.

Mr. Tutwiler called the Governor's attention to the fact that the rendition by these utilities of their respective services is vitally essential to the industrial, commercial and social welfare of the country, and particularly so during the present war. He pointed out that everything which the utilities must buy, acquire or pay for has advanced, while their hands are generally bound by contracts. They must sell their products at the pre-war prices, and unless they are given the same liberty as other individuals or corporations, or are otherwise relieved, the public utilities must stagger on toward inefficient service, final collapse and financial disaster. In this connection Mr. Tutwiler said in part:

"It is in anticipation of appealing for relief in the forms of increased rates or the elimination of some burdens, or both, that we have requested this conference with you as Governor, desiring to lay before you informally and generally some of the difficulties of the situation now confronting the public utilities of the State."

MR. TUTWILER'S PLEA

Later Mr. Tutwiler in an interview emphasized the importance of maintaining the public utilities at their maximum efficiency. He quoted from the President's letter calling upon State and local authorities to act in accord with the necessities of the situation. Mr. Tutwiler added that the railway of Memphis had already filed application with the City Commission for a permit to increase rates from 5 to 6 cents, and that a number of other companies throughout the State were doing the same thing.

Syracuse War Fare Plea

City Agrees to Commission Assuming Control Provided Added Revenue Is Used to Help City

The New York State Railway's petition for an increased fare in Syracuse has been held open without date, by the Public Service Commission for the Second District, pending the investigation by Price, Waterhouse & Company of the books of the railway. This investigation is under way, following a conference by the Public Service Commission, the city and the railway company's representatives as to the form of the audit.

AGREEMENT WITH CITY DISCUSSED

The company's petition was heard by the commission on May 17. Corporation Counsel Hancock represented the city, Warnick J. Kernan of Utica and B. E. Tilton, general manager, the railroad company, and Lamont Stillwell, Solvay; George B. Dolson, Liverpool, and Irving Higby, Eastwood.

Mr. Hancock told the commission about the agreement made by Syracuse and James F. Hamilton, vice-president and general manager of the New York State Railways, under which a wage increase was made from May 1 and an agreement reached as to submitting the 6-cent fare question to the Public Service Commission for a determination after the audit of the railway's books. He said the railway had agreed to its part of the agreement.

Mr. Hancock, for the city, formally withdrew objection to the commission exercising jurisdiction in the proceeding and in doing so called the attention of the commission to the following:

1. Any order made should protect Syracuse by providing that the petitioner shall consent to the exercise of jurisdiction by the commission in case the city should hereafter make an application for a reduction of any increased rate of fare which may be granted by the commission in this proceeding.

2. The question of the effect of the franchises granted by the city to the petitioner or of the statutes upon the jurisdiction of the commission is not before the commission and should not be passed upon, inasmuch as the proceeding is submitted to the commission by consent.

3. For the purpose of putting in issue any and all allegations of the petition bearing upon the necessity of justice of a 6-cent fare, the city formally denies the same.

4. In the event that the commission should decide that the petitioner is entitled to the increased fare within the city, the attention of the commission is called to the fact that a very important consideration influencing the city to consent to the exercise of jurisdiction by the commission was assurance of the petitioner that it would take steps to insure the expenditure of any increased revenue received in Syracuse for the benefit of its Syracuse system, and the city now asks that any order made herein require, so far as the commission can, that the Syracuse system receive the benefits of any increased revenue which may accrue in Syracuse from any order which may be made in this proceeding.

5. The city of Syracuse does not in the event that the commission decides that the petitioner is entitled to increased revenue within the city, in any way concede that a 6-cent fare would produce an increased revenue, or that the petitioner should not first be required to retain a 5-cent fare with an additional charge for a transfer. The city simply suggests that this question should be considered by the commission in fairness to citizens who believe that a 6-cent fare will not produce increased revenues commensurate with the additional burden imposed upon those compelled to pay the same, and that an additional charge for a transfer would be more profitable to the petitioner and fairer to the public.

Mr. Kernan, representing the New York State Railways, said he agreed with Mr. Hancock's statement. The company had already committed itself to the expenditures of the Syracuse revenues in a wage increase of 4 cents an hour, but Mr. Tilton did not feel that he should pledge himself at this time to further specific details. The company recognizes the fairness of the city and it will be the effort of the company to see that of any increase in revenue in Syracuse the city receives the benefit of the increase.

"I want you to go further," said Chairman Hill, "and say not only what the intentions of the railroad are but that you will agree that the commission may hold you to the intentions."

"I now agree," said Mr. Kernan, "that under the proposition of Mr. Hancock whatever order is made may have a provision to that effect so far as the commission can do so by any order entered at this time."

The representatives of Solvay, Liverpool and Eastwood asked that any determination affecting Syracuse should also apply to lines to those places. The railways' representatives agreed with these suggestions.

A WAR MEASURE

Chairman Hill said that the question was being treated as a war measure in order to get a prompt adjustment of the fare matter. According to Mr. Hill the question came down to one of ratio of income to investment.

Zones in Pittsburgh June 20

The expected new schedule of rates of fare on the lines of the Pittsburgh (Pa.) Railways was announced on May 20 to become effective on June 20. Signs were posted in the cars, but these gave no information beyond stating that the new schedules could be seen at the company's offices and at the carhouses.

In the majority of cases the fare is 7 cents, but on all lines a point is designated to which a ride may be had for 5 cents, based closely on a radius of 2 miles from the center of the city. Where there is a loop at or near the 2-mile point, this is usually selected as the limit of the 5-cent fare.

Five cents will be charged on the crosstown line, but transfers from those cars to other lines for a ride beyond the 2-mile limit will be charged for at 2 cents. No tickets will be sold in lots of less than eight, and the charge for eight will be 55 cents. Six-cent fares in Pittsburgh are abolished, but for municipalities surrounding the city and on lines of the company they will be the rule within the municipal limits, except that McKeesport will have a 5-cent fare somewhat similar to that prescribed for Pittsburgh.

A booklet has been issued by the company giving the details of the increases in fares.

The decision to go to zone fares was noted in the *ELECTRIC RAILWAY JOURNAL* of May 25, page 1029.

New I. T. S. Rates

Brief Review of the Decision of the Illinois Commission Extending Relief from War Burdens

The decision of the Public Utilities Commission of Illinois allowing increased rates to the Illinois Traction Company, Peoria, Ill., referred to briefly in the *ELECTRIC RAILWAY JOURNAL* of May 25, page 1029, was rendered on May 16. The commission granted almost in its entirety the petition of the company for emergency relief for electric railway, electric light and gas property in fourteen cities in which the company operates. In Cairo and Jacksonville 6-cent fares are allowed, while in Bloomington, Decatur, Danville, Champaign, Urbana, Galesburg and Quincy the company is permitted to eliminate tickets and go to a straight 5-cent fare.

AN EMERGENCY CASE DECIDED QUICKLY

The case was presented and considered as an emergency matter. The presentation of the testimony in connection with it has been referred to previously in the *ELECTRIC RAILWAY JOURNAL*. The primary purpose of the application of the petitioners was to secure necessary additional operating revenue to meet temporary abnormal conditions. The commission says some of the changes proposed were so radical in their nature, so far-reaching and in some instances were so indefinite in their effect, that in the opinion of the commission they should not be approved upon such record as was made in the case. In this connection it says that the action of the commission at this time in regard to these matters is not to be considered as the final determination of their merits and that they may be presented in separate proceedings for further consideration by the commission if the petitioners so desire. Considering the facts and circumstances, however, the commission finds that certain classifications, rates, rules and regulations omitted from the schedules of the petitioners were just and reasonable and should be continued in full force and effect as provided.

Four principal questions were raised by the objectors to the increases proposed in the various schedules. It was contended, first, that the ordinances granting franchises constituted a contract which precluded the commission from increasing the rates; second, that each separate utility should be charged with its separate expenses and credited with its separate earnings, and that the return to be allowed should be computed separately for each class of service rendered, irrespective of emergencies; third, that a detailed valuation and appraisal of each separate utility should be made; fourth, that the companies should be content to receive returns upon their investment much less than are ordinarily adequate and reasonable and if necessary to forego all return if to receive the same necessitated an increase in rates.

With regard to the first contention,

the commission was of the opinion that it was without force and quoted from previous cases decided by it: With respect to the second contention, the commission said that for the purpose of the present case it was not necessary to make a complete separation of the various units of property that constituted the combined plant of a single company. With regard to the third contention, the commission was of the opinion that a complete and detailed valuation of each of the petitioner's properties was not necessary to a determination of the issues involved. With respect to the fourth contention, the commission considered it was without force. The commission held that it was its duty in each case to determine what might be reasonable rates alike for the public and the utility.

SHOULD REGULATE RATES UPWARD AS WELL AS DOWNWARD

In a separate opinion by Mr. Lusey, commissioner, especially concurring, he said:

"The respective utilities clearly demonstrated the necessity for the relief petitioned for, and I am of the opinion the schedules filed should have been approved as a plain matter of right. I regard it as just as much the duty of this commission under the law to afford relief to a utility even though such relief results in increased rates to the public when the facts and circumstances warrant such relief, as I regard it the duty of the commission to afford similar relief to the public, by a reduction of the rates, when the facts and circumstances warrant such action, and I am further of the opinion that the public served by these respective utilities neither expect nor desire that the utility shall furnish service at a return which will not pay the operating expenses of the utility, much less allow any return on the money which has been invested by the stockholders."

The new rates are effective from May 1. They are to remain in force for the period of the war, the commission, however, retaining jurisdiction on this point.

Municipal Line Increases Fares

New rates went into effect on May 1 on the Edmonton (Alta.) Radial Railway, operated by the city. As a result the cash fare has been increased to 7 cents till 11 p.m. After that hour the rate is 10 cents. The revised rates fixed by the Council are as follows: Tickets purchased off the cars at ticket-selling stations, five for 25 cents; tickets bought on the cars, four for 25 cents. No workmen's tickets are now issued. Children under six years of age are carried free. Tickets for children more than six and under fifteen years of age, and high school pupils carrying certificates, ten for 25 cents, or one-half fare. Children carried after 11 p.m. pay half fare. Between 5 and 6.50 p.m., 5 cents is charged on baby carriages and large parcels. No change has been made regarding transfers.

Up to May 21, the new tariff had worked very satisfactorily. It is hinted

that there is a slight decrease in traffic, but on the whole, the revenue compared with the same period last year has increased.

The ticket system is of great benefit on the one-man cars. It saves considerable time in collecting fares and making change.

New St. Louis Fare Insufficient

Richard McCulloch, president and general manager of the United Railways, St. Louis, Mo., on May 24 announced that he estimates the 6-cent car fare granted by the State Public Service Commission will be insufficient to cover the increased cost of wages, material and taxes, and as soon as this is demonstrated—if it is—the company will ask the State body to grant a further increase in the fare. Mr. McCulloch also announced that the commission will be asked to grant a 6-cent fare in St. Louis County.

Albany Fare Changes Suspended

The Public Service Commission for the Second District on May 21 ordered suspended the operation of the tariff schedule of the United Traction Company which was filed with the commission on May 2. The commission's order directs the suspension of the new rates for sixty days from and including June 2, or until Sept. 29. The commission has decided that it will order a hearing concerning the propriety of the proposed increased fares and that pending the hearing and decision, the suspension of the new rate schedule is ordered.

The new schedule was filed on May 2 and would have become effective on June 2 if sanctioned by the commission. It provided that a rate of 6 cents per capital was to be charged for one continuous ride between Albany and Rensselaer and that transfers were only to be issued within the "Albany-Rensselaer Through Zone."

The first official action by the cities affected by the proposed new schedule of fares was taken by the city of Rensselaer. Mayor McIntyre, through Corporation Counsel Ernest L. Boothby, filed an objection to the proposed schedule on the grounds that the rates contained therein, as far as Rensselaer is concerned, were "unlawful, excessive, inequitable and discriminatory."

Mayor McIntyre contended that the United Traction Company was prevented, by statutory limitations, from increasing the rate of fare or changing the system now governing the issuance of transfers. Under the regulations which have been in force the rate of fare between points in Albany and Rensselaer is fixed at 5 cents, with the privilege of transfer to points within the lines operated in the two municipalities.

At a conference of officials representing Albany, Rensselaer, Troy, Water-vliet and Cohoes, held recently, it was decided best to have each city and community affected by the new rate schedule conduct its own case, as the aspects differ.

Union Traction Company Hearing Concluded

The hearing of the petition of the Union Traction Company of Indiana, Indianapolis, Ind., to the Public Service Commission of that State, to increase its interurban passenger rate to 2½ cents a mile was held before the commission on May 22. Evidence introduced showed that it was anticipated the deficit of the company for the year 1918 would amount to \$273,290, after deducting sinking funds and fixed charges. The chief engineer of the commission indicated that he thought \$33,000 a mile was a fair value to use in making an estimate of the property for a rate-making basis. Representatives of the company stated that this value was too low in comparison with similar properties, and that such properties had been valued at more than \$50,000 a mile. The company's inventory shows a total valuation of \$15,616,463, and the value of the interurban property as \$13,642,667. The engineer of the commission thought this was very conservative, and that the physical value of the interurban property alone was probably about \$15,500,000.

Transportation News Notes

Wants to Eliminate Tickets.—The Fort Wayne & Northern Indiana Traction Company has filed a petition with the Public Service Commission of Indiana asking authority to eliminate its six-for-a-quarter tickets in Logansport, and to abandon its track on High Street in that city from Sixth Street to Spencer Park. The petition also requests authority to use one-man cars in Logansport and on certain lines in Fort Wayne.

Schenectady Fare Petition Withdrawn.—The Public Service Commission, for the Second District of New York at its regular session on May 23 granted an order permitting the Schenectady Railway to withdraw its petition for a 6-cent fare. No special hearing on the merits of the petition was held, but on April 18, after the decision of the Court of Appeals in the Quinby case, there was a hearing as to whether or not there was a franchise limitation in Schenectady.

Dallas Skip Stop Giving Satisfaction.—The skip-stop system of operation, now being tried by the Dallas Railway in the downtown section of the city and on the Ervay Street line, will likely be extended to all lines in the city, according to announcement by Richard Meriwether, general superintendent of the company. Mr. Meriwether reports a saving in schedule time of 12 to 15 per cent on lines on which the skip-stop system is in operation. There has been

practically no complaint of inconvenience from patrons.

Lincoln Now Suggests Six-Cent Fare.—The State Railway Commission of Nebraska has deferred action upon the motion of City Attorney Peterson for a reopening of the case to take additional evidence regarding the value of the Lincoln Traction Company's property. E. J. Hainer, counsel for the company, urged that the commission increase the rate of fare first and then proceed to take an inventory of the company's property if it wanted one. He said that a 5-cent fare, originally asked for by the company, would not be enough. He urged a 6-cent fare.

Preparing for Portland Hearings.—It is expected that on June 8 the final cross-examination will be conducted in connection with the application of the Cumberland County Power & Light Company, Portland, Me., for an increase in fares on the Portland Railroad, operated under lease, and that on the same day the testimony of the opposition will be presented. The company is seeking a 6-cent fare in the central zone, covering the thickly populated sections of Portland and South Portland, with 2 cents a zone outside. The case was opened early in March, and the tariff providing the rates just mentioned is under suspension.

Courts Against Dallas Jitneys.—Jitneys in Dallas, Tex., have lost again in their fight for the right to continue operation. The State Supreme Court has held the Lindsley ordinance, enacted during the administration of Henry D. Lindsley as Mayor and designed to put the jitneys out of operation, to be valid in all particulars and a proper exercise of the police powers lodged in a municipality. The case grew out of an attempt by the city to enforce this ordinance. It has been in the courts for nearly two years. Some of the moves in connection with the matter were reviewed briefly in the *ELECTRIC RAILWAY JOURNAL* for May 25, page 1031.

Increased Tariff Filed for Elmira.—The Elmira Water, Light & Railroad Company, Elmira, N. Y., on May 23 filed with the Public Service Commission for the Second District a new tariff schedule affecting local passenger traffic, to go into effect on June 20. The changes proposed were: Fares between points on lines other than Seneca Lake division, except between points within the city limits of Elmira, corporate limits of Elmira Heights and Horseheads, increased 1 cent. Fares between points on the Seneca Lake division, Center Mills, Croton, Elmira, Horseheads, Millport, Mountour Falls, Pine Valley and Watkins, increased to basis of 2 cents a mile.

Package Car Discontinued.—The Beaver Valley Traction Company, New Brighton, Pa., has filed with the Public Service Commission a notice of discontinuance of its package car, effective on June 8. The package car business of the company has been continuously decreasing. The total daily mileage operated by this car approxi-

mates 70 miles. The operating cost per car-mile, due to present business conditions, runs as high as 28 cents or a total cost of operating this car of \$19.60 a day, while for the last three months the average daily receipts have been \$7.15 a day. These facts have all been explained by the company in a notice addressed to the patrons of the car.

Lewiston Fare Case Being Heard.—A hearing was held on May 21 before the Public Service Commission of Maine on the application of the Lewiston, Augusta & Waterville Street Railway for permission to increase its zone charges from 5 cents to 7 cents. Subsequently cross-examination was conducted and it was expected the case would be closed on May 29. A decision will probably be handed down without delay as this is an emergency case. The company did not earn its operating expenses for the first quarter of 1918. It is also beset by the prospect of higher interest on obligations maturing in 1918 and a new wage scale. Some time ago the property was re-zoned, ten 5-cent fares being substituted for seven 5-cent zones in one instance.

New C. E. T. A. Tariff.—The Central Electric Traffic Association issued on date of May 9 effective on June 15 joint passenger tariff No. 19, canceling joint passenger tariff No. 17, of rates for interchangeable 2000-penny coupon tickets. This interchangeable 2000-penny coupon ticket will be honored between all stations on the roads participating in the tariff, located in Illinois, Idaho, Indiana, Kentucky, Michigan and Ohio. These penny coupon books are to be used for purposes of simplicity, it being possible to tear off the exact fare and make them available for use with any rate of fare. The coupons are perforated along the strip so that one-half of the detached strip of coupons can be retained by the road lifting the same and one-half can be used in balancing accounts. Roads other than those listed are also considering using these books.

Uniform Steps in Spokane.—E. E. Lillie, superintendent of the Spokane Traction Company, has agreed to make a standard of height of less than 17 in. on all steps by removing the block from the truck bolster. Heretofore there has been no standard at which the treads of the step should be maintained above the rail. They have varied from 15½ in. to 21¾ in. It is also proposed to change the gate operation. At present the gates are operated by the motorman, but hereafter the conductor will operate the gates. Disappearing steps will be attached to the gates so that when the gates are open a step will come out from under the present step. The steps of the cars of the Washington Water Power Company were formerly 18¼ in. above the rail, but in the majority of cases these have been lowered to 15 in. As the cars go through the shops the platform sills are being lowered to this standard.

St. Joseph Wants Six-Cent Fare.—The St. Joseph Railway, Light, Heat & Power Company, St. Joseph, Mo., has

an application pending before the Public Service Commission of Missouri for permission to increase its railway rates from 5 cents to 6 cents. Last February the company obtained permission to eliminate the sale of tickets at reduced rates and went to a straight 5-cent fare. In this connection J. H. Van Brunt, vice-president and general manager of the company, has made a statement to correct the impression that the company received a 1-cent fare increase through the order eliminating tickets. He has pointed out that the majority of fares before the installation of the straight 5-cent fare were not tickets. The average fare was 4.67 cents. This made the increase only 0.33 of a cent. Mr. Van Brunt says that while this has helped, it has by no means dammed the leak in the expense accounts of the company.

City Agrees to Advance in Fare.—The Public Service Commission for the Second District of New York on Jan. 31, after an investigation, permitted the Waverly, Sayre & Athens Traction Company to increase its rate of fare in Waverly to 6 cents. The company filed a tariff but later voluntarily canceled it upon ascertaining that there existed a franchise restriction limiting fares to 5 cents. The trustees of Waverly, by resolution on May 8, modified the franchise restriction so as to permit a 6-cent fare during a certain period. The commission on May 23 granted an order permitting the company to file a new tariff, effective from June 1. This enables the company to make a 6-cent fare on the entire line; that is, 6 cents from Waverly to Sayre and 6 cents from Sayre to Athens. The company collects 12 cents from Waverly to Athens on through passengers, also a 6-cent fare in the village of Waverly. The right to charge 6 cents in Pennsylvania is not limited to a period of the war, as is the case in New York State.

Increase in Fare Asked for Wilmington.—The Tidewater Power Company, Wilmington, N. C., has appealed to the Corporation Commission of that State for increased fares. The company desires to charge a flat 6-cent fare on its city lines and to discontinue the sale of tickets for local rides. The company would also advance fares over the line from Wilmington to the beach. Instead of the present rate of 35 cents for the round trip to the beach, or three round-trip tickets for \$1, the company asks that it be permitted to charge a straight cash fare of 25 cents and 20 cents for tickets. To Wrightsville Sound, it asks permission to raise the rate to 25 cents for the round trip or 15 cents straight fare. In Wilmington, chief interest is centered on the proposal to advance the commutation rate to residents of the beach traveling to Wilmington. This special rate, for twenty-six round-trip tickets, has been \$7.80 from Wilmington to Wrightsville Beach and the company asks to advance it to \$9.36. Between Wrightsville Sound and Wilmington it asks for an increase in the commutation rate from \$4.68 to \$5.85 for the twenty-six round-trip tickets.

Personal Mention

George R. McComb has been appointed assistant treasurer of the Illinois Traction System, Peoria, Ill., to succeed **W. H. Carnahan**, deceased.

W. H. Elder has resigned as secretary and auditor of the United Traction Company, Albany, N. Y., to become connected with a firm of public accountants in New York City.

E. B. Smith, formerly with the Arkansas Valley Railway, Light & Power Company, Pueblo, Col., has been appointed auditor of the Muskogee Gas & Electric Company, Muskogee, Okla., succeeding **J. H. Schmidt** who has resigned to enter business for himself.

Alba B. Johnson, Philadelphia, who is president of the Baldwin Locomotive Works, on May 24 was elected president of the Railway Business Association. Mr. Johnson succeeds **George A. Post**, New York, who had served as head of the association since its formation in 1908.

Horace A. Abell, of the engineering department of the New York State Railways, Rochester, N. Y., has been appointed engineer in charge of way and structures of the Rochester lines of the company. Mr. Abell succeeds **Donald B. Falconer**, who resigned on April 1.

S. H. Grauten has been appointed electrical engineer of the Kansas City (Mo.) Railways, his duties covering design, construction and operation of the substations and electrical distribution system. This work includes the rehabilitation started about a year ago and under which three substations have been completed and will soon be in operation.

Chester P. Rexford has been appointed claim agent and park manager of the Union Street Railway, New Bedford, Mass., to succeed the late **Isaac W. Phelps**, who was claim agent for twenty-two years. Mr. Rexford went to work for the company on Sept. 8, 1902, in the office. He then rose gradually through the offices of cashier and paymaster and on Nov. 1, 1910, was appointed to the accident department as assistant to Mr. Phelps. He has also been assistant park manager up to this time.

Charles J. Finger has been elected president and treasurer in charge of operation of the Columbus Magnetic Springs & Northern Railway, Richwood, Ohio. Mr. Finger's record in railway work dates back twenty-five years, and includes service on South American roads, the Texas & Pacific Railroad and in the central part of the country. He was general manager of the Ohio River & Columbus Railway and combined lines. He was later appointed receiver and general manager of the Ohio River & Columbus Railway.

Archie Evans, for a number of years secretary to **H. B. Fleming**, chief engineer of the Chicago (Ill.) Surface Lines, has been commissioned a first lieutenant in the construction division of the Quartermasters' Corps, National Army, and on May 14 reported for duty at Washington, D. C. Mr. Evans became connected with the Chicago City Railway in 1906 as a stenographer and after several promotions was made secretary to the chief engineer, the duties of which position he has continued to perform under the new arrangement of unified operation of the surface lines.

Henry Worth Thornton, an American, whose appointment four years ago as general manager of the Great Eastern Railway, England's most important system, caused much comment both here and abroad, has been named a brigadier general of the British Army. Mr. Thornton received the rank of colonel shortly after the beginning of the war and was advanced to brigadier general in appreciation of his exceptionally efficient work as director of the Channel transports. Previous to going to England Mr. Thornton was general superintendent of the Long Island Railroad and president of the Northwestern Railway, operating the electric railways at Meadville, Pa., and vicinity.

John M. Ryan has been appointed roadmaster of the Boston (Mass.) Elevated Railway surface lines, succeeding to the position recently resigned by **Col. T. F. Sullivan**. Mr. Ryan was graduated from the Norwich University, Northfield, Vt., with the class of 1895, receiving the degree of C. E. The same year of his graduation he entered the service of the engineering department of the city of Cambridge. In 1897 he became connected with the Boston Elevated Railway in the civil engineering department. In 1899 he was appointed engineering inspector on surface track construction work. In 1912 he went from the engineering force to the road department of surface lines, being appointed supervisor of surface tracks.

V. R. Hawthorne has been elected acting secretary of the Master Car Builders' Association and the Master Mechanics' Association. He has been serving as temporary secretary of the associations since the death of **J. W. Taylor**. Mr. Hawthorne was born at Cieon, Pa., on Nov. 27, 1886. He entered the service of the Pennsylvania Railroad in June, 1905, and has been with the company continuously since that time. While at Altoona for that company he was appointed on the M. C. B. special committee making time studies. Early in 1917 he was appointed special master car building inspector, reporting to **J. T. Wallis**, general superintendent of motive power of the Pennsylvania Railroad. He was

assigned on special M. C. B. committee work of the American Railway Association in April, 1917.

F. D. Ward has been appointed superintendent of rolling stock, for the Bay State Street Railway, Boston, Mass., succeeding to the duties of **H. W. Irwin**, acting superintendent of car repairs, recently resigned. Mr. Ward's first experience in railway work began with the Grand Avenue Railway, Kansas City, back in the nineties. Later he became associated with properties in Chicago, controlled by the late **C. T. Yerkes**. When Mr. Yerkes became interested in the London, England, underground railway properties, he took Mr. Ward with him to look after the car equipment for the new tubes. For about eleven years he was associated with the American Car & Foundry Company, doing important engineering work on car design and equipment. A period of this time was spent in Italy, where he had charge of a large car equipment contract for his company. For the last four years Mr. Ward has been an active member of the Smith-Ward Brake Company, New York.

Albert E. Gulliver, chief engineer of the power station of the Trenton & Mercer County Traction Corporation, Trenton, N. J., has resigned his position to engage in special work for the British government pertaining to marine operations. He will be located in Canada and will make his home in Halifax. Mr. Gulliver became connected with the Trenton company two years ago. He was formerly in the employ of the Public Service Corporation of New Jersey. Mr. Gulliver was graduated from the London Polytechnic Institute. After leaving school he entered the employ of **Harland & Wolf**, at Belfast, noted shipbuilders and engineers. Later he was commissioned in the Royal Indian Marine, a branch of the English navy. During the Boer war he was engaged in the transport service and later in the merchant marine, plying across the North Atlantic. He then settled in the United States and became erecting engineer for the Westinghouse Electric & Manufacturing Company.

Obituary

Edward C. Meier, president of the Heine Safety Boiler Company, Phoenixville, Pa., died suddenly on May 7, while attending the meeting at Philadelphia of the District Production Division of the Emergency Fleet Corporation. He was stricken just after making a short address giving his views on speeding up the construction of boilers and died within a very short time. Mr. Meier was born in 1870. He was a son of **Col. E. D. Meier**, founder of the Heine Safety Boiler Company, and became president of the company in 1916 on the death of his father.

Construction News

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

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

Franchises

Selma, Ala.—The Selma Traction Company has received a thirty-year franchise from the City Council of Selma to construct a line from Alabama Avenue and Mechanic Street to the Municipal Swimming Pool.

Butte, Mont.—The Butte Electric Railway has received a franchise from the City Council to construct double tracks along Main Street from Galen Street to Quartz Street.

Newark, N. J.—The Board of Commissioners of Newark has granted permission to the Public Service Railway for a double-track extension of its tracks from Chestnut Street through Elm Road and Gotthardt Street to Hamburg Place, ½ mile.

Caledonia, Ohio.—The Columbus, Delaware & Marion Railway has received a franchise from the County Commissioners to erect electric transmission lines from Marion to Caledonia, about 10 miles.

Tulsa, Okla.—The City Commission of Tulsa has repealed the ordinance recently passed granting the Oklahoma Union Railway a franchise for an outlet to the north of Tulsa, including right-of-way over First Street. The ordinance was enjoined by property owners on First Street and this case is now pending in the courts. It was claimed that a franchise such as was granted was worth at least \$200,000, whereas the company was paying nothing for it.

Montpelier, Vt.—The Barre & Montpelier Traction & Power Company will receive a new franchise from the City Council of Montpelier.

Track and Roadway

***Decatur, Ala.**—The construction of an electric railway from Decatur to Florence, Sheffield and Tuscomb, a distance of about 45 miles, is under consideration. H. L. Morrill and D. S. Echols, Decatur, and C. E. Warwick, Vicksburg, Miss., are interested in the project.

San Diego (Cal.) Electric Railway.—Work has been begun by the San Diego Electric Railway on the reconstruction of 1 mile of track in San Diego.

Municipal Railway of San Francisco, San Francisco, Cal.—The United States War Department has tentatively offered

to furnish \$150,000 for the extension of the Potrero line from the Union Iron Works to Hunter's Point, where the new government drydock is to be constructed. While the government will own the line, it will be operated as part of the Municipal Railway and will ultimately be taken over by the city. Under the tentative plans, employees and passengers will be carried in the daytime and between certain hours at night only material will be carried. Under the present plan, the line will operate on Army Street to Kentucky Street, south to Evans Avenue and then out to Hunter's Point Boulevard.

***Savannah, Ga.**—The Foundation Company contemplates the construction of a 1-mile line from its shipyard on the Brampton Tract to connect with the Port Wentworth extension of the Savannah Electric Company.

Chicago (Ill.) Surface Lines.—Work has been begun by the Chicago Surface Lines on the construction of a 5-mile extension from South Chicago to Hege-wisch. Upon the completion of the Monroe Street bridge construction will be begun on an extension of the Monroe Street line from Franklin to Canal Streets. The bridge will be opened to the public by August and the car line will be completed a month later.

Evanston (Ill.) Railway.—This company will rehabilitate its tracks between Dempster Street and Main Street at a cost of about \$30,000. New steel rails will be laid on a concrete foundation.

Tri-City Railway Company of Illinois, Rock Island, Ill.—Double tracks will be laid by the Tri-City Railway Company of Illinois along Eleventh Street from Eighteenth Avenue, Rock Island, to Center Station and Sears, Ill. The present right-of-way is desired by the city for street purposes and the company will give the city a deed for this right-of-way. The company also agrees to double-track Eleventh Street from Eighteenth Avenue to Aiken Street when required. In return for this service the city guarantees that it will extend for twenty years the franchise of the company in South Rock Island Township which will expire within two years.

Inter Urban Railway, Des Moines, Ia.—Work will be begun at once by the Inter Urban Railway double tracking 1600 ft. of its Camp Dodge line, south of Brennan Crossing. Bids have been advertised for grading the cut just beyond the Beaver crossing, where 3000 ft. of double track will be laid.

Bay State Street Railway, Boston, Mass.—As a result of conferences by government officials, the Quincy City Council, General Manager Wakeman of the Fore River Shipbuilding Yard and

R. B. Stearns, vice-president of the Bay State Street Railway, about \$150,000 is to be spent in improving the present facilities of the Bay State Street Railway in Quincy. The government experts reported that, while the power was ample, its distribution was poor owing to the extraordinary demands made upon it. They have accordingly recommended that a substation be established at the Hancock Street car-house. The temporary bridge across the Neponset River is to be widened to accommodate a double track. Part of the cost of these improvements will be paid by the government.

Detroit (Mich.) United Railway.—Work will be begun soon by the Detroit United Railway on the construction of an extension to the Ford submarine chaser plant in Springwells.

***Caledonia, Minn.**—It is reported that the right-of-way for an electric railway between Caledonia and Houston has been purchased. It is stated that officers of the Preston Light & Power Company, Preston, Minn., are interested in the project.

McComb & Magnolia Railway & Light Company, McComb, Miss.—A report from the McComb & Magnolia Railway & Light Company states that the company plans to place in operation 4 miles of its line, between McComb and Fernwood, this year. Guy M. Walker, New York, N. Y., president. [Dec. 29, '17.]

Jersey Central Traction Company, Keyport, N. J.—After the Jersey Central Traction Company had refused to obey the order of the Middlesex County Board of Freeholders and make certain repairs to the tracks on Stevens Avenue, South Amboy, the county body refused to allow the company's cars to operate on that thoroughfare. Director William S. Dey, of the Board of Freeholders, had the tracks on Stevens Avenue buried in sand, thus preventing cars from being run. William Hitchcock, general manager of the company, promised to make the repairs and the freeholders agreed to remove the sand.

Brooklyn (N. Y.) Rapid Transit Company.—The Brooklyn Rapid Transit Company has announced its intention of restoring service on the Norton Point railroad line between the Sea Beach-West End terminal and Sea Gate at Coney Island. Last October the operation of this line was stopped because of the reconstruction of the elevated lines to Coney Island, and the building of the new terminal there. A trolley service was substituted on Surf Avenue with transfer privileges at Thirty-seventh Street to Sea Gate. Transfers were also given to the Culver and the Brighton Beach lines. These privileges will be continued when the rapid transit service is restored.

New York Municipal Railway, Brooklyn, N. Y.—The Public Service Commission for the First District of New York recently received bids for the construction of column foundations for Route 49, Section 3, a portion of the Culver Rapid Transit Railroad in Brooklyn.

The lowest bidder was William G. Cooper, Inc., New York, whose proffer was \$171,256. Bids were also received by the commission for furnishing two portions of ballast for new rapid transit lines. The Upper Hudson Stone Company, New York, bid \$1.90 for portions *D* and *E* of this contract, while the New York Trap Rock Company bid \$2.05 for portion *B* and \$1.85 per cubic yard for portion *E*. All of the above bids have been taken under consideration by the commission.

Interborough Rapid Transit Company, New York, N. Y.—The Board of Estimate on May 28 voted \$300,000 in corporate stock for the Interborough Rapid Transit Company to complete the connections between the old subway and the new subway at Times Square, Manhattan, and Borough Hall and Atlantic Avenue, Brooklyn.

Northern Ohio Traction & Light Company, Akron, Ohio.—Work will soon be begun by the Northern Ohio Traction & Light Company on the construction of an extension of its Belden Avenue line. The cost of the improvement will be approximately \$50,000.

Chillicothe & Camp Sherman Electric Railway, Chillicothe, Ohio.—Application has been made by the Chillicothe & Camp Sherman Electric Railway to the Public Utilities Commission of Ohio for permission to issue \$75,000 in common stock, \$150,000 in preferred stock and \$150,000 in first mortgage bonds for the construction of its proposed line from Chillicothe to Camp Sherman. George A. Vaughters, Chillicothe, is interested. [May 4, '18.]

Cincinnati (Ohio) Railway.—Mayor Galvin of Cincinnati recently received a letter from W. Kesley Schoepf, president of the Cincinnati Traction Company, setting forth the terms on which the proposed Warsaw Avenue extension will be made. The Price Hill Business Men's Club has proposed to finance the extension and provide the rails. Mr. Schoepf requires that the city or the people of Price Hill contract with a reliable contractor to build the extension according to standard specifications under the supervision of the city engineering department and with the approval of the company for the estimated sum of \$112,078. He also specifies that the rails are to be obtained by the people of Price Hill and that they shall be of the new standard 7-in. section 91-375 type or any other section equally acceptable to the company. The total amount of the estimate for the construction of the extension must be placed with some bank or the guarantee of a bank must be obtained that it will make payment as the certificates are issued. The work must be commenced by July 1. Mayor Galvin said this matter is up to the people of Price Hill who made the proposition.

Niagara Falls, Ont.—The Ontario Railway & Municipal Board has approved the plans of the Provincial Hydro-Electric Commission for the construction of a line from Chippawa through the Township of Stamford.

W. W. Pope, University Avenue, Toronto, secretary.

Dallas (Tex.) Railway.—The plan of the Dallas Railway to take up its track on Tyler Street from Seventh to Jefferson Street and to extend the so-called North Loop line westward out Seventh Street to the city limits, an extension of about 1 mile, has met with strong opposition on the part of residents of the North Loop section. These residents have presented their objection to M. N. Baker, supervisor of public utilities, who has promised a hearing before final action is taken. The North Loop residents assert that abandoning the track on Tyler Street will break all connection between the North Loop line and the Sunset and Boundary lines, thus effectively cutting Oak Cliff into two distinct street car districts. Since several amusement parks and other places have been built on the North Loop with the aim of drawing patronage from all of Oak Cliff, they would suffer material loss by the proposed changes in the street car lines.

Eastern Texas Traction Company, Dallas, Tex.—Construction work on the proposed interurban line to be built by the Eastern Texas Traction Company from Dallas to Greenville will be resumed as soon as the European war ends, according to announcement by J. W. Crotty, vice-president and general manager of the company, made to a stockholders' meeting held in Dallas recently. The proposition has been fully financed through the Dallas Electric Company, grading has been finished and all bridges built, and everything is in readiness for the laying of steel to begin as soon as conditions in Europe are such that steel can be secured. Lack of steel was declared to be the cause of the suspension of work. Fully \$50,000 worth of cross-ties and a large amount of other material is now on hand ready for use as soon as steel is to be had. The stockholders' meeting was held for the election of directors, which resulted as follows: F. E. White, J. W. Crotty, Ralph Wade, J. W. Gardner and W. B. Hamilton, Dallas, and R. M. Chapman and Joseph F. Nichols, Greenville. The officers of the company were re-elected as follows: F. E. White, Dallas, president; J. W. Crotty, Dallas, vice-president and general manager; Joseph F. Nichols, Greenville, vice-president; and Ralph Wade, secretary-treasurer. (Feb. 23, '18.)

Shops and Buildings

Columbus, Ga.—A contract has been awarded to Gifford & Whittaker for the construction of a transfer station at the intersection of Tenth and Broad Streets for the convenience of street car patrons. The building will be approximately 40 ft. x 20 ft. and will be constructed of brick and stone. There will be a general waiting room, a ladies' rest room, a smoking compartment for men, colored waiting rooms and toilets. The cost will be about \$7,000.

Public Service Railway, Newark, N. J.—This company is having its carhouse, which has been used as a storehouse at Washington Park for the past twenty years, moved from the site where the government bag loading plant is being constructed. Two galvanized buildings are being built to take the place of the structure being removed.

Long Island Railroad, New York, N. Y.—Plans have been prepared by the Long Island Railroad for the construction of a one-story brick engine house, at Eighth Avenue and Sixth Street, Brooklyn, about 38 ft. x 102 ft., to cost about \$15,000.

New York (N. Y.) Railways.—The New York Railways has leased its former plant at 17 Front Street to the Battery Warehouse Corporation at an aggregate rental of about \$200,000.

Power Houses and Substations

Tri-City Railway & Light Company, Rock Island, Ill.—A new 22,500-kw. turbine is being installed at the power house of the Tri-City Railway & Light Company in Moline.

Bangor Railway & Electric Company, Bangor, Me.—A 500-kw. generator is being installed in the Veazie power plant of the Bangor Railway & Electric Company at a cost of about \$55,000.

Montgomery Transit Company, Norristown, Pa.—This company reports that it has under construction a new substation at Skippack.

Trenton, Bristol & Philadelphia Street Railway, Philadelphia, Pa.—Current to assist in the operation of the Trenton, Bristol & Philadelphia Street Railway is now being supplied by the Trenton & Mercer County Traction Corporation, Trenton, N. J. A cable for the transmission of current from the Trenton company's power house was strung for 1½ miles through the streets and across the lower Delaware River bridge to Morrisville, where the Pennsylvania company's cable was tapped. The cable was strung at the request of the government so the trolley service running to the Tullytown and Bristol government plants could be improved.

Tacoma Railway & Power Company, Tacoma, Wash.—The city lighting department is considering a contract with the Tacoma Railway & Power Company, under which the company will install, maintain and operate the large generator which the city purchased and for which no space has been provided. The Tacoma company has offered, for \$1,800 a year, to install it and operate the generator and hook it up with its own switchboard, so that if the peak load were exceeded the company could cut in the city line on its own current. Hamilton Gronen, commissioner of light, estimates that it would cost the city \$10,000 to build a substation on the tideflats.

Manufactures and the Markets

DISCUSSIONS OF MARKET AND TRADE CONDITIONS

FOR THE MANUFACTURER, SALESMAN AND PURCHASING AGENT

ROLLING STOCK PURCHASES • MARKET QUOTATIONS • BUSINESS ANNOUNCEMENTS

Armature and Field Coils Active

Anticipating Heavy Business During the Summer Months Railways Are Buying for Replacements

On account of severe spring storms, the demand for armature and field coils has increased measurably. One manufacturer, in commenting on market conditions, said the sale of armature and field coils to electric railways is very active. While it is a normal movement at this time of the year, in anticipation of heavy summer service, a greater quantity of coils is being purchased than a year ago.

This and other manufacturing companies are in a position to ship promptly. The only obstacle, it was stated, would be the freight embargoes and the difficulty of obtaining priority orders. It was conceded that on the question of priority certificates the official transportation committee was inclined to favor shipment of all material for traction roads and other public utilities. Prices, it was stated, have not been changed nor were any looked for. Concern was expressed in connection with obtaining material, although it was conceded an improvement in the situation was evident.

Westinghouse Company's New Works

Essington Plant Embodies the Latest Building Construction With Most Modern Equipment

Spurred on by the urgent need of the government for ships the Westinghouse Electric & Manufacturing Company has made a record in the erection and operation of its new works at Essington, or South Philadelphia, about 9 miles from Philadelphia on the banks of the Delaware River. The plant is now devoted entirely to the production of ship propulsion machinery for the navy and the merchant fleet. A little more than a year ago the present site was plowed field, now it contains seven large buildings which gives employment to 2500 people. These buildings, comprising a floor space of over 600,000 sq.ft., include a pattern storage shop, foundry forge shop, power house, erecting shop, and two machine shops.

Two steam railroads, an electric line and the river afford means of transportation, though the last mentioned has not as yet been utilized.

The greatly increased demands on the Westinghouse company for steam-electric generating units led to the neces-

sity of seeking enlarged facilities, as those at East Pittsburgh were already crowded. It is expected that eventually this plant will be of a size comparable with the East Pittsburgh works, which now employ in the neighborhood of 25,000 people, and cover a floor space of more than 100 acres.

Commercial Bribery May Become Criminal Offense

The Federal Trade Commission Urges Enactment of Law in Order to Preserve Competition

The Federal Trade Commission has recently sent to both branches of Congress a communication urging "the enactment in the public interest, as an aid to the preservation of fair and free competition, a sufficient law striking at the unjustifiable and vicious practices of commercial bribery and that such law be so comprehensive as to strike at each person participating in any such transactions."

The Federal Trade Commission has found commercial bribery to be general throughout many branches of industry, and scores of complaints have been issued by it on that account. Fourteen states at present have laws prohibiting such practices, but they fail to reach the root of the evil and eradicate it—in fact, they are practically dead letters. The commission can only deal with commercial bribery as an unfair method of competition, having no criminal jurisdiction, and can deal only with one side, having no power to reach the receiver.

In its communication to Congress the commission states that it "has made considerable investigation of bribery of employees of customers as a method of securing trade. These bribes take the form of commissions for alleged services, of money and gratuities and entertainments of various sorts, and of loans—all intended to influence such employees in the choice of materials. It is evident that this inexcusable added cost is finally passed on to the consumers.

"Corrupt employees having the power to spoil and disapprove materials have been able to bid one salesman against another until in many cases they have extorted secret commissions, so-called, as large as 20 per cent of the value of the goods sold.

"In order to prevent a resort to a common method of corruption, it is recommended that the law should also prohibit the giving of any such gifts or other considerations to members of the agent's or employee's family, or to any other person for his use or benefit, direct or indirect."

Railway Credits Sound in Middle West

Many Roads Taking More Time and Are Frequently Giving Notes for Credit Extension

The credit of electric railways in the Middle West is just as sound as it ever was, in spite of the fact that it is sometimes impossible for the utilities to pay their bills as promptly as before the high level prices.

Electric railways are frequently asking for more time, although some continue to discount their bills and in a few cases bills are discounted where previously time has been asked. In general, when time is asked it is granted by the manufacturers although in a few instances manufacturers are holding strictly to thirty days and refusing business on any other basis.

In many cases credit is being taken in the form of notes, although occasionally it is refused altogether. Interest at 6 per cent is being charged on some overdue accounts and some manufacturers are trying to make this the basis of credit and time extensions. There is, of course, a limit to this service, as manufacturers might find themselves running a banking institution.

The fact that railways are asking for more time is due primarily to the high prices resulting from the war. Equipment, overhead and track have all suffered severely and unforeseen expenditures have been necessary at the prevailing high prices.

"Cost-Plus" Basis to Be Abandoned

The "cost-plus" basis of undertaking government work is more or less familiar to manufacturers in the electric railway field. It has caused dissatisfaction it appears for several cogent reasons. Now, to follow advices from Washington, D. C., the policy of the War Industries Board, as officially stated, in abandoning cost and percentage as a basis of contracts with the industries of the country which is now in force on steel where prices have been established, will be extended to other materials in the near future.

Upset prices for work will be divided with the government on the basis of affording profit over certain figures, with a system of premiums for early, and penalties for late delivery. The general tendency is to get away from the cost and percentage basis, because of the many opportunities which are afforded to manufacturers unduly to increase their costs.

War Absorbs the Entire Output of Metal Conduit

Shipbuilding Takes More Pipe than Was Originally Anticipated — Factories Are Behind in Their Shipments

Metallic conduit and conduit fittings are now in such a position that it is impossible to obtain deliveries without showing that the material is required for a project necessary toward the successful waging of the war. In order to secure pipe, manufacturers must show the ultimate use of the conduit. It will therefore be impossible, one of the manufacturers stated to a representative of the *ELECTRIC RAILWAY JOURNAL*, for a purchaser to secure new pipe after the present supply is exhausted, except for industrial purposes or such other purposes as are definitely linked up with the war.

The available supply of pipe is by no means sufficient to take care of the market. The shipbuilding program of the United States has taken a very large amount of conduit, much larger in fact than was previously anticipated. Factories are behind in shipments, but find themselves in no position to better the situation at present.

This situation in conduit came as a result of the manufacturers in the iron and steel industry pledging their entire output to the service of the government and our allies so long as required. The direct and indirect requirements of the United States and its allies, it is stated, are equivalent to between six and eight months' production. As a result commercial iron and steel for the moment are receiving no attention. This situation, of course, will continue as long as 100 per cent of the production is necessary for war purposes.

Bituminous Coal Prices Reduced Ten Cents

The Reduction Will Effect a Saving to Consumers of Approximately \$60,000,000

Ten cents a short ton has been stricken from the mine price of all bituminous coal in the United States by order of Fuel Administrator H. A. Garfield. The new price took effect at 7 o'clock on Saturday morning, May 25, and represents an average reduction of nearly 5 per cent.

The reduction will mean an annual saving to consumers of a sum estimated by the Fuel Administration at \$60,000,000. Under the President's plan, the railroads will furnish cars to all coal mines alike, without discrimination, except as dictated by the prior requirements of the railroads for operating purposes and the needs of operating consumers and of the war. The introduction of the principle of even car supply, it is expected, will reduce the general average overhead of mine operation, thereby justifying the administration in putting out a price reduction order. It is understood that the mine prices thus fixed will remain undis-

turbed until the United States Fuel Administrator has before him the cost returns for the twelve months ending Aug. 31, 1918. The returns thus far are being carefully studied by Fuel Administration accountants and engineers with a view to making the utmost saving to the public that is consistent with a maximum production of coal.

The order will have no effect on the price of anthracite coal, which forms the bulk of the domestic consumption fuel in the eastern part of the country.

Consumers of bituminous coal who have already entered their orders for the year's coal supply, but whose coal has not yet been delivered, will, of course, receive their supplies at the reduced price. The new price applies to all bituminous coal which left the mines after 7 a.m., on May 25, no matter how long the order for the delivery of the coal has been standing.

Coal delivered after 7 a.m., May 25, under contracts which have been entered into since Dec. 29, 1917, will be billed at the new price. Under the regulation of the Fuel Administration all such contracts call for the delivery of coal at the government price effective at the time of delivery.

Higher Rates to Make for Fare Box Business

Makers Are Preparing for a Heavy Demand—Substituting Metal Tokens for Paper

With the change of car fare, from 5 to 6 cents, already granted to a number of traction roads in Connecticut, Pennsylvania, Massachusetts and the Middle Western States, manufacturers of fare boxes are arranging their plants to meet the demand for a device to care for the new fare.

Where a nickel has been the uniform fare heretofore and to avoid an accumulation of pennies in the boxes, the token or metal coin, instead of paper tickets is to be substituted in many cases, according to the fare box manufacturers and distributors. It is believed the sale of fare boxes to accommodate the 6 cent or higher fare can be taken care of more conveniently and easily than in any other way by the use of metal tokens. In the Middle West the metal token or special coin has been adopted in a number of places and is highly popular. It is said these tokens occasionally are used as currency in local transactions.

The boxes now being used separate, register, and count four different fares automatically, the counting device being operated by a cam mechanism.

The Cleveland (Ohio) Armature Works, Inc., has filed articles of incorporation, under the laws of the State of Delaware with a capital stock of \$2,000,000, to manufacture electric machines, generators and batteries. The incorporators are C. L. Rimlinger, M. M. Clancy and F. A. Armstrong of Wilmington, Del.

Wire Unaffected Because of Rubber Import Restrictions

Electrical Manufacturers Consulted in Advance of Order Limiting Incoming Crude Materials Supply

An order from the War Trade Board limiting the importation of crude rubber from overseas to a total of 25,000 tons from May 6 to July 31 is apparently not creating any discernible disturbance or concern with electrical goods manufacturers using this material in their finished products. Several leading producers of rubber-covered wire and cable, rubber insulators, etc., when asked if this action would curtail their output or have a tendency to increase prices, said that with the exception of rubber insulators, due to be advanced any day, no trouble was anticipated unless the restricted period was extended longer or indefinitely. Then there would be reason for anxiety.

Wire and cable manufacturers frankly state that rubber had been plentiful and cheap, and every company of any standing had certainly a three months' or more reserve stock of crude rubber on hand. In fact, it is reported that electrical goods producers had been consulted by the government regarding their supply of rubber before the action was taken. Therefore no one would be hampered or have legitimate or trade output lessened in any measurable degree.

The War Board stated in its notification that the "requirements for the production of goods for the United States and allied governments will be met in full. The remainder of the 25,000 tons permitted under the restriction will be allocated among the manufacturers of rubber products on the basis of their consumption in 1917."

Crude-rubber importers, on the contrary, are in a different frame of mind. A leading concern that has important dealings in crude rubber with the electrical trade was very much perturbed over the situation. The War Trade Board had sent out a questionnaire to the 175 importers of crude rubber, to which 174 responded. It was thus ascertained that on March 31 there were on order or in store 11,224 tons; engaged abroad or en route, 20,754 tons, with a further lot of 14,800 owned by Americans and intended for this market, making a total of 46,778 tons. It was further stated by this importer, who seemed to represent the sentiment of his branch of the business, that the annual (1917) consumption of crude rubber in this country was 169,000 tons. He therefore figured that the 46,000 odd tons in sight in no way could supply the normal demand.

The price of crude rubber established by the government on May 8 is 68 cents a pound for upper refined, 63 cents a pound for first latex (first milk), 62 cents a pound for red smoke sheets. The producers of electrical goods use all three grades in liberal quantities. Seven years ago Para rubber sold for \$3.85 a pound.

Trade Notes

W. E. Hawley, formerly connected with the George Cutter Company, South Bend, Ind., in the switchboard department, is now with the Penn Electrical & Manufacturing Company, Irwin, Pa., manufacturer of switchboards and panelboards.

Safety Car Devices Company, St. Louis, has received an order for ten of its safety control equipments from the Charleston Consolidated Railway & Lighting Company, Charleston, S. C. These equipments will be used on the ten safety cars of thirty-five-passenger capacity, mentioned in the "Rolling Stock" column of the issue of this paper for May 18.

Heywood Brothers & Wakefield Company, Wakefield, Mass., manufacturer of car seats, chairs and fittings, in recently declaring an extra 5 per cent dividend on its common stock, made payment in Liberty Loan bonds of the third issue. The arrangement appears to have been very satisfactory to the stockholders. This was in addition to the regular 8 per cent dividend on the common.

Westinghouse Electric & Manufacturing Company, Pittsburgh, Pa., has received an order from the United Electric Light & Power Company of New York City for a 22,000-kw. turbo-generator set. The generator will be rated at 25,900 kva. at 85 per cent power factor, 8000 volts, three-phase, 62½

cycles. It will be direct connected to a Westinghouse 22,000-kw. turbine. The order includes a 40,000 sq. ft. surface condenser and the usual auxiliaries.

Crouse-Hinds Company, Syracuse, N. Y., has placed on the market a dust and moisture proof cover for double push-button switches. These covers with the switch operating mechanism attached can be installed on either their FS or FD series condulets. This makes possible the use of this switch for lighting subways or platforms where dampness and dust prevail. Complete description of these covers is given in conduit bulletin No. 1000-H, which has just been published by this company.

New Advertising Literature

Combustion Engineering Corporation, New York, N. Y.: Bulletin C1, illustrating various installations of the method and operation of the "Cover Stoker," the title of the pamphlet.

Laclede-Christy Clay Products Company, St. Louis, Mo.: High-capacity stokers for higher volatile coals are described in a booklet. The operation of these is given.

Delta Star Electric Company, Chicago, Ill.: Bulletin No. 33, devoted to high-tension switching and protective equipment. This sixty-four-page bulletin has 309 illustrations and contains considerable technical information. Copies will be sent upon request.

Rolling Stock

Levis County Railway, Levis, Quebec, Canada, is reconstructing two double-truck cars.

Boston (Mass.) Elevated Railway's bill providing for the State taking over the property has been signed by the Governor and the order for 300 new cars will probably be placed soon.

Bamberger Electric Railroad, Salt Lake City, Utah, which had twenty passenger cars and several electric locomotives destroyed by fire on May 7, as reported in last week's issue, is arranging to buy new rolling stock deliverable as soon as possible. In the meantime second-hand cars are being secured to supply the deficiency.

Philadelphia (Pa.) Rapid Transit Company has put in operation, on its Hog Island shipyard branch, a type of car of the most advanced construction, which differs materially from the company's standard equipment. These 100 cars, the order for which came through the United States Shipping Board, Emergency Fleet Corporation, were built by the J. G. Brill Company and are now about nearly all delivered. At the time the contract was placed with the Brill Company specifications on an additional 100 were requested, on an option of thirty days. The option was not taken up, therefore current reports of the original order being expanded to 200 cars are without authority.

NEW YORK METAL MARKET PRICES

	May 22	May 29
Copper, ingots, cents per lb.	23½	23½
Copper wire base, cents per lb.	26½ to 26¾	26½ to 26¾
Lead, cents per lb.	7.05	7.65
Nickel, cents per lb.	40	40
Spelter, cents per lb.	7½	7½
Tin, Chinese, * cents per lb.	\$1.03	\$1.00
Aluminum, 98 to 99 per cent., cents per lb.	†32.10	†32.10

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

OLD METAL PRICES—NEW YORK

	May 22	May 29
Heavy copper, cents per lb.	22	22
Light copper, cents per lb.	19½	19½
Red brass, cents per lb.	18	19
Yellow brass, cents per lb.	13	13
Lead, heavy, cents per lb.	6	6
Zinc, cents per lb.	5½	*12
Steel car axles, Chicago, per net ton.	\$41.52	\$41.52
Old carwheels, Chicago, per gross ton.	\$29.00	\$29.00
Steel rails (scrap), Chicago, per gross ton.	\$34.00	\$34.00
Ste 1 rails (relaying), Chicago, gross ton.	\$50.00	\$60.00
Machine shop turnings, Chicago, net ton	\$16.00	\$16.00

ELECTRIC RAILWAY MATERIAL PRICES

	May 22	May 29
Rubber-covered wire base, New York, cents per lb.	27 to 30	27 to 34
Weatherproof wire (100 lb. lots), cents per lb., New York	30.40 to 36.10	30½ to 36.10
Weatherproof wire (100 lb. lots), cents per lb., Chicago	33.42 to 38.35	38.00 to 38.35
T-rails (A. S. C. E. standard), per gross ton	\$70.00 to \$80.00	\$70.00 to \$80.00
T-rails (A. S. C. E. standard), 100 to 500-ton lots, per gross ton	\$65.00	\$67.50
T-rails, high (Shanghai), cents per lb.	4½	4½
Rails, girder (grooved), cents per lb.	4½	4½
Wire nails, Pittsburgh, cents per lb.	3½	3½
Railroad spikes, drive, Pittsburgh base, cents per lb.	4½	4½
Railroad spikes, screw, Pittsburgh base, cents per lb.	8	8
Tie plates (flat type), cents per lb.	*3½	*3½
Tie plates (brace type), cents per lb.	*3½	*3½
Tie rods, Pittsburgh base, cents per lb.	7	7
Fish plates, cents per lb.	*3½	*3½
Angle plates, cents per lb.	*3½	*3½
Angle bars, cents per lb.	*3½	*3½
Rail bolts and nuts, Pittsburgh base, cents per lb.	4.90	4.90
Steel bars, Pittsburgh, cents per lb.	5	5
Sheet iron, black (24 gage), Pittsburgh, cents per lb.	4.90	4.90
Sheet iron, galvanized (24 gage), Pittsburgh, cents per lb.	5.80	5.80
Galvanized barbed wire, Pittsburgh, cents per lb.	4.35	4.35

	May 22	May 29
Galvanized wire, ordinary, Pittsburgh, cents per lb.	3.95	3.95
Car window glass (single strength), first three brackets, A quality, New York, discount†	80%	80%
Car window glass (single strength), first three brackets, B quality, New York, discount	80%	80%
Car window glass (double strength, all sizes AA quality), New York discount	82½ & 3%	82 & 3%
Waste, wool (according to grade), cents per lb.	11½ to *22	11½ to 22
Waste, cotton (100 lb. bale), cents per lb.	13 to 13½	13 to 13½
Asphalt, hot (150 tons minimum), per ton delivered	\$38.00	\$38.00
Asphalt, cold (150 tons minimum, pkgs. weighed in, F. O. B. plant, Maurer, N. J.), per ton.	\$42.60	\$42.00
Asphalt filler, per ton.	\$45.00	\$45.00
Cement (truck lots), New York, per bbl.	\$3.20	\$3.20
Cement (carload lots), Chicago, per bbl.	\$3.26	\$3.26
Cement (carload lots), Seattle, per bbl.	\$3.60	\$3.60
Linseed oil (raw, 5 bbl. lots), New York, per gal.	59	\$1.59
Linseed oil (boiled, 5 bbl. lots), New York, per gal.	\$1.58	\$1.58
White lead (100 lb. keg), New York, cents per lb.	9	10
Turpentine (bbl. lots), New York, cents per gal.	51½	53

* Government price. † These prices are f.o.b. wharves, with boxing charges extra.