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Says a Public Service Chairman: "Play Fair on Skip Stops"

ELECTRIC railways never had a finer opportunity to give better service with existing equipment than is offered by the skip stop, but the opportunity must be accepted in the spirit of moderation and fairness. In fact, the way the railways handle this war-made situation will have much to do with the consent of commissions to further methods of alleviation."

The foregoing is the sense of what a wide-awake public service chairman said in private conversation lately. In his community the skip stop had been introduced successfully on the basis of about eight stops to the mile in the city, six to the mile in the suburbs and four to the mile in the country. Exceptions had been made according to local traffic peculiarities. On the whole the public was highly pleased, and the railways were able to give at least 10 per cent more service. To-day, the commissioner is very happy over results so mutually beneficial, but it was evident that he would not tolerate any withdrawal of cars so long as the present heavy travel continues. He made it clear that the keeping of faith means to the railway interests a mass of good-will worth countless thousands of dollars.

Who's Next for the Company Section Membership Trophy?

AT A WONDERFULLY enthusiastic meeting of the Rhode Island Company section held at Providence last Monday evening, M. C. Brush as vice-president of the American Electric Railway Association awarded the company section charter membership cup to that section. The cup will be held at Providence until another section is formed with a charter membership of more than 216.

The meeting was attended by a number of men interested in the affairs of the association and the industry from New York and Boston, who by their presence and remarks indicated that they realized the importance and significance of the award. There are already rumors of plans to capture the cup, and the local section officials generously said that while they appreciated the honor thrust upon them, in the interest of the industry as a whole they hoped they would not be allowed to keep it long.

In his presentation address Mr. Brush outdid himself as an orator in summarizing the essentials of success in the electric railway business, as in others. The chief of these, he said, is the ability to make and keep friendships, "capitalizing but not commercializing" them. These friendships are a necessary feature of a company organization and no better agency than the company section exists for fostering them. If this is so

then the sooner more sections are formed the better, and they might as well be formed with more than 216 original members.

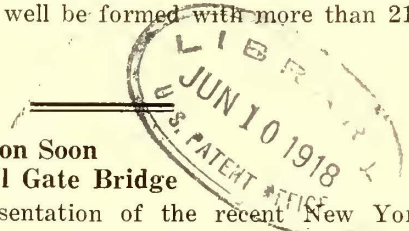
Who's next?

Electrical Operation Soon Over the Hell Gate Bridge

UNTIL the presentation of the recent New York Railroad Club paper by E. R. Hill, published in the March 23 issue of this paper, very little was generally known in regard to a piece of heavy track and overhead construction in New York City on which the Pennsylvania and New Haven Railroads were expending large sums of money. To be sure, the Hell Gate Bridge had attracted wide attention, due to the length and height of the span and to the beauty of the arch, but the relation of this bridge to the whole project was understood only in a very general way. Mr. Hill gave some data of the road and a description of the locomotive to be used, and these have now been followed by the descriptions of the overhead construction given in last week's issue.

It is, of course, unfortunate that the locomotives in this case must be equipped to draw their power supply from both alternating and direct current. The situation is in no way different, however, from that which confronted the New Haven engineers when first they selected single phase in spite of the necessity for bringing the trains into the "Grand Central Station" of the New York Central over the third-rail track. As far as the passenger terminal in New York is concerned, the New York Connecting Railroad might have been equipped with third-rail and direct current. In view of the future, however, when the line to Bay Ridge will be electrified, it is necessary to provide alternating current overhead so that the New Haven freight locomotives, which are straight single phase, can be used from New Haven to Bay Ridge.

For an "off" year in electric railway work the progress being made in 1918 in heavy traction lines is encouraging. The very extensive work on the Milwaukee, the Chestnut Hill branch work at Philadelphia, the improvements on the Norfolk & Western, the New York Connecting Railroad and the new locomotives which are to operate over it, etc., are all at least partly to be credited to this year. It is hoped that the federal railroad administration will find time to study this progress and to extend electric operation wherever it can be profitable under war-time conditions. It is safe to say of electrification as was until recently said of electrical engineering in general, that "it is still in its infancy." It is a husky infant, however, and needs only a fair chance to develop rapidly to maturity.



Bankers Have a Duty to Perform for the Nation

AN EFFORT must be made through ordinary banking channels to work out the salvation of electric railway financing. This is the meaning of the recent statements of the War Finance Corporation, as noted in last week's issue, to the effect that its resources are intended to be loaned directly to war industries only in exceptional cases and then upon adequate security.

Such an attitude presents a big problem to utilities. Of the \$225,000,000 of securities maturing during 1918, \$90,000,000 have already come due. In most cases, however, the refinancing has been held up pending decision on the question of governmental aid. This has now been settled in a disappointing way—a way which requires the utilities to take the most active steps to provide for their financial needs. No time should be wasted in wishing for a moratorium for utility issues. A general moratorium might not be injurious, but a special one on utility securities, inviting a most invidious comparison, would not only have a terrible effect now but would also leave such issues a marked class afterward.

Nor should each individual utility hope too fondly that it will come within the exception clause. Study the details of the one direct loan successfully secured by the United Railways of St. Louis—a six-months' loan for \$3,235,000, supported by \$3,500,000 of mortgage bonds and \$800,000 of Liberty Bonds, and protected also by a fare increase to 6 cents. Read what the War Finance Corporation has just said about this: "It is a short-time loan, which, because of the high class of collateral secured, is certain to be liquidated at maturity, and the temporary relief granted by this advance will give the company opportunity to make permanent financial arrangements through regular banking channels."

The gist of the matter, therefore, is this. The Capital Issues Committee will scrutinize minutely all applications for approval of new capital, but even when its consent is acquired the government will probably not advance the money except in cases where the new construction is for its own immediate benefit. And for maturing issues, consent for the refinancing of which is not required, the government will give aid only in rare cases where the security is excellent, the term of the loan short and the prospect good that the banking assistance unavailable at the time will be forthcoming at the end of the period.

This puts the situation in all its large phases directly up to the banks. Undoubtedly some of them have in recent months shown a reluctance to handle utility business—a reluctance which has been manifested in demands for prohibitive interest charges. Now, however, their plain duty has been pointed out, and they should perform it with despatch. And, it should be added, they can make a profitable return. If a bank loans money to a utility at 8 per cent and then rediscounts 75 per cent of the loan at say 6 per cent, as it can do through the War Finance Corporation, the difference in interest payments will make a much higher return on the balance representing the bank's own advance.

The big handicap in getting banks to look upon utility financing as a desirable class of business is, of

course, the inadequacy of present-day rates. As pointed out in detail later, we believe that the rate situation will have a more favorable aspect from now on. If the banks feel less optimistic, however, and deem it unwise now to tie up their reserves for long periods in utility enterprises, then the war finance corporation act will be a dead letter for utilities, and the government in the nation's interest will be obliged to consider amendments or new legislation. But this remains to be seen. What the utilities must do now is to make every effort to induce the banks to co-operate with the government for the preservation of the utility industry. No time should be lost.

Federal Government Can Raise Utility Rates for General Welfare

THE RATE situation, we believe, is picking up. This is most fortunate, for the question of adequate rates underlies the important topic discussed above, utility financing, and all other phases of the great work of serving the public. Why do we think the rate situation is improving? Because each week sees utilities here and there being granted higher rates? Partly. But in the main we feel as we do because we think men in the utility industry and the public outside are beginning to realize that utility rate-making is not of purely local concern and that the situation has assumed a phase which demands national attention and action.

Two noteworthy expressions of this idea have been made in the last few days, one by P. H. Gadsden before a gas meeting in New York and the other by the United States Railroad Administration. Mr. Gadsden raises a most interesting point—can the federal government authorize adequate rates for local utilities? While, as he observes, nothing is known of any disposition on the part of the Administration now to regulate rates, the question concerns a future possibility in regard to which the powers of the natural authorities are receiving increasing recognition.

Mr. Gadsden's argument can be briefly stated. It is that the power of the federal government over an industry in war time depends not upon the latter's participation in interstate commerce but upon its necessity, under the demands of war, for the nation's welfare. Thus even local industries can become so impressed with national characteristics as to place them within the sphere of federal control. In such an event the power of the national government, during the war and a reasonable time thereafter, is paramount, overriding ordinary state and municipal rights.

Electric railways and other utilities are war industries; their maintenance at maximum efficiency is necessary for the successful prosecution of the war. President Wilson and other leading men of the country have recognized this and have urged local authorities to grant relief. Unless these words of advice are heeded, it is not at all unlikely that the federal government may be obliged, as a last resort, to take such a step as Mr. Gadsden describes. If our memory serves us correctly, Congress during the Civil War period authorized an increase to cover the higher costs of operation.

If the federal government intervenes in this matter in the future, government control of service and other matters will undoubtedly not be desired, for the state regulatory authorities are better equipped to supervise

such features of operation. But if an expeditious uniform rate increase must be had, the nation may be depended upon to find a way.

If Interurbans Need Money, They Should Raise Rates Now

WE SPOKE above of the national concept of utility operation, and of the general need for higher rates. More encouraging than the growing recognition of what the national government may have to do to provide adequate relief, however, is the actual movement under way to secure increased revenues for one particularly deserving branch of electric railway service—interurban.

Most of the interurban electric railways have been in urgent need of higher rates, but as a rule they have not felt it wise to raise their rates above the steam railroad rates, which in many states have been restricted by law to 2 cents a mile. As a result, the interurban earnings have suffered severely. For example, a compilation made by the Electric Railway War Board shows that the net income of 127 interurbans in 1917 was only \$9,816,180 as compared to \$21,228,006 in 1913, a loss of \$11,411,826. Moreover, twelve companies during the first quarter of 1918 reported a deficit of \$533,000 as compared to a net income of \$318,000 for the similar period in 1917.

Now, however, Director-General McAdoo with a wave of his magic wand has increased the steam railroad passenger rate to 3 cents a mile, and the interurbans have an unparalleled opportunity to secure adequate revenues. The increase in costs on the steam lines has been officially recognized by the government, and it certainly cannot be said that electric lines are not entitled to the same just treatment as the steam lines.

The government is not blind, however, and it sees clearly that present interurban rates are inadequate. Indeed, the situation is so evident that the United States Railroad Administration, through the Electric Railway War Board, has expressed the desire that electric railways take immediate steps to raise their rates proportionately to accord with those announced by the government and to make their new rates effective as nearly simultaneously therewith as is possible. It will support the effort of interurbans with the state commissions.

There will probably be certain localities where it may be expedient to depart from a fixed rule, but all deserving interurban carriers—and most of them are—should feel no hesitancy in asking for a 3-cent rate, or at least for such a rate as will maintain the former relation with the steam rates. As the War Board has pointed out, this is no time for vain dreams of profitable competition with the steam lines. Co-operation is the need of the hour, and there is business enough for all. It would be foolish for an electric road to start a competition in rates with the government.

The new steam passenger rates go into effect on June 10; the freight rates on June 25. Several interurbans are already filing higher tariffs, and most of them are expected to do so. All really in need should. If the state commissions understand the urgency of relief, as previously pointed out by President Wilson, no further support from governmental sources should be necessary.

Give a Company Money, and It Will Get Results

IS NOT the public-control plan for the Boston Elevated Railway a victory for the proponents of municipal ownership? Will the steam railroads ever go back under private control? These and similar questions which are frequently raised to-day in certain quarters are designed to make the unthinking public believe that the death-knell of private ownership and operation of railroads and utilities has been sounded.

But such is not the case. The idea that the public must take full charge of such enterprises as a matter of public necessity is nothing but the result of muddled thinking. Government ownership advocates seek to camouflage the issue, but the public will not be deceived.

What is the main issue? Simply this—that the rates paid by the public shall cover the full cost of service, including a fair return to the investor on the property in public service. The cost of service must be paid—no matter whether a utility is publicly or privately operated. Municipal ownership and operation will not decrease costs; indeed, if experience is any guide, such a system of control means wastefulness and inefficiency.

In the readjustment of railroad and utility operation to meet present abnormal conditions, therefore, the vital question is not who is operating the property but what will be paid to the operator. Under the Boston control plan, whose general principles have now been extended to the other Massachusetts roads if they wish to adopt the plan, the directors of a company, with the same provision for a flexible fare, could accomplish as much as will the public trustees.

In other words, the successful outcome of the Boston or Massachusetts situation will not at all be owing to the larger part played by the public in the operation of the facilities; it will be due to the revenue-producing mechanism which could not be used—or certainly could not be used so readily—by the companies while under private operation. Given the same opportunities and the same means, private operation will show better results than government operation. Given better opportunities and better means, the government may operate a commercial enterprise successfully, but this will be due solely to the better advantages and will be in spite of, not because of, the government control.

We believe that private ownership and operation will continue in America, but we also believe that the public interest in utility operation will henceforth be better protected. The co-operative or partnership idea governing the relations between the utility and its public will spread widely in the electric railway field; it is being advocated for the steam railroads after the war. Whether the closer relation will come through a more nearly perfect commission regulation, partial city representation on a board of control or sole city membership thereon will depend upon local conditions. The main point is that the credit of utilities must be restored by a sound and fair and farsighted rate system. As the utility operators have proved worthy of public trust, and as the needs of the utility do not demand heroic measures in the form of direct city aid, just so is the degree of public control likely to be minimized. The keynote of the future, however, will be participation, and in unity of interest and understanding progress should be made.

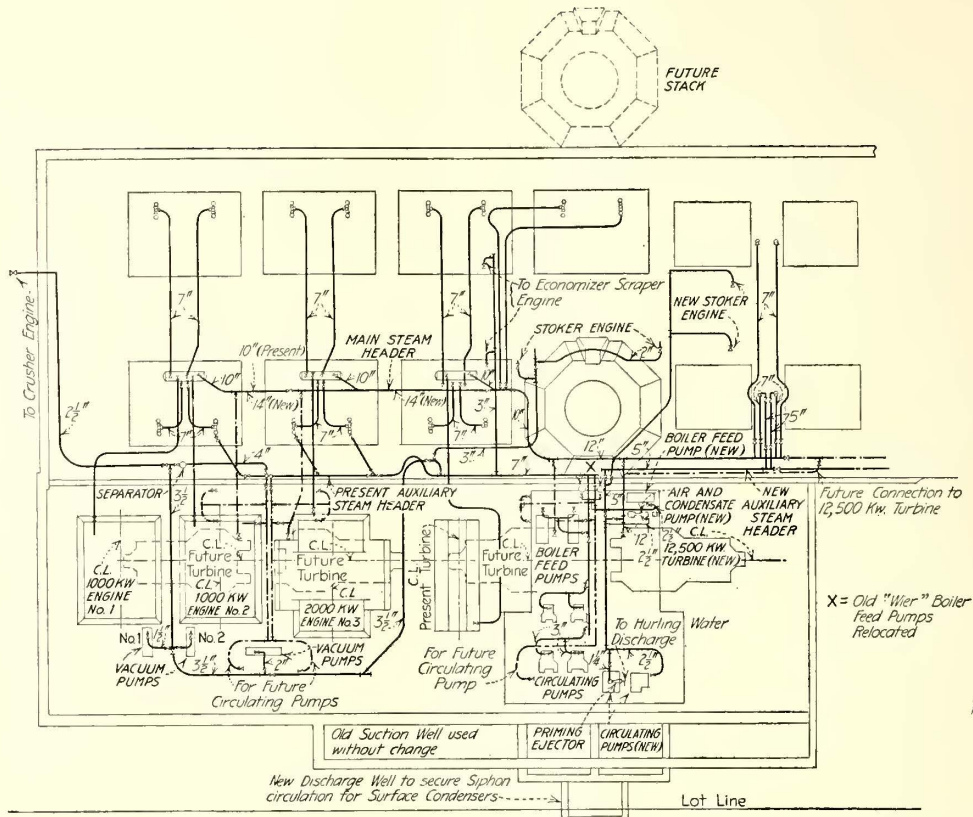
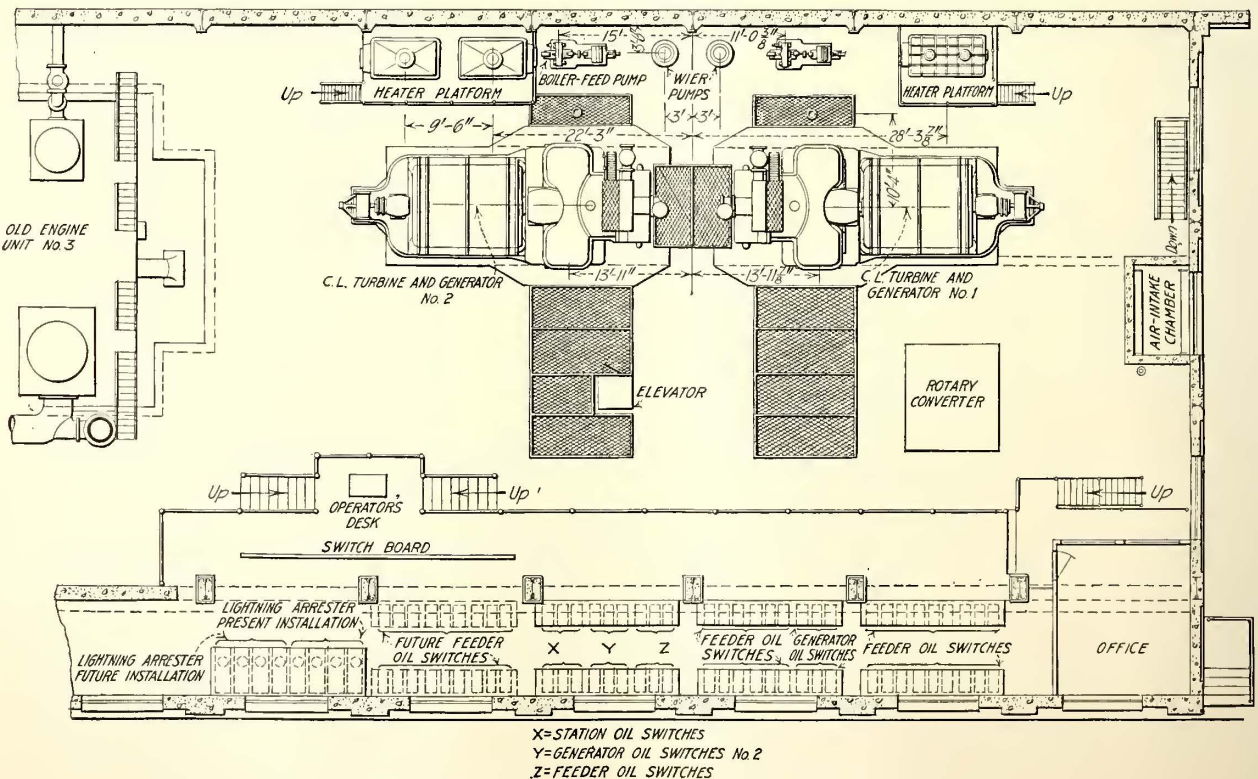


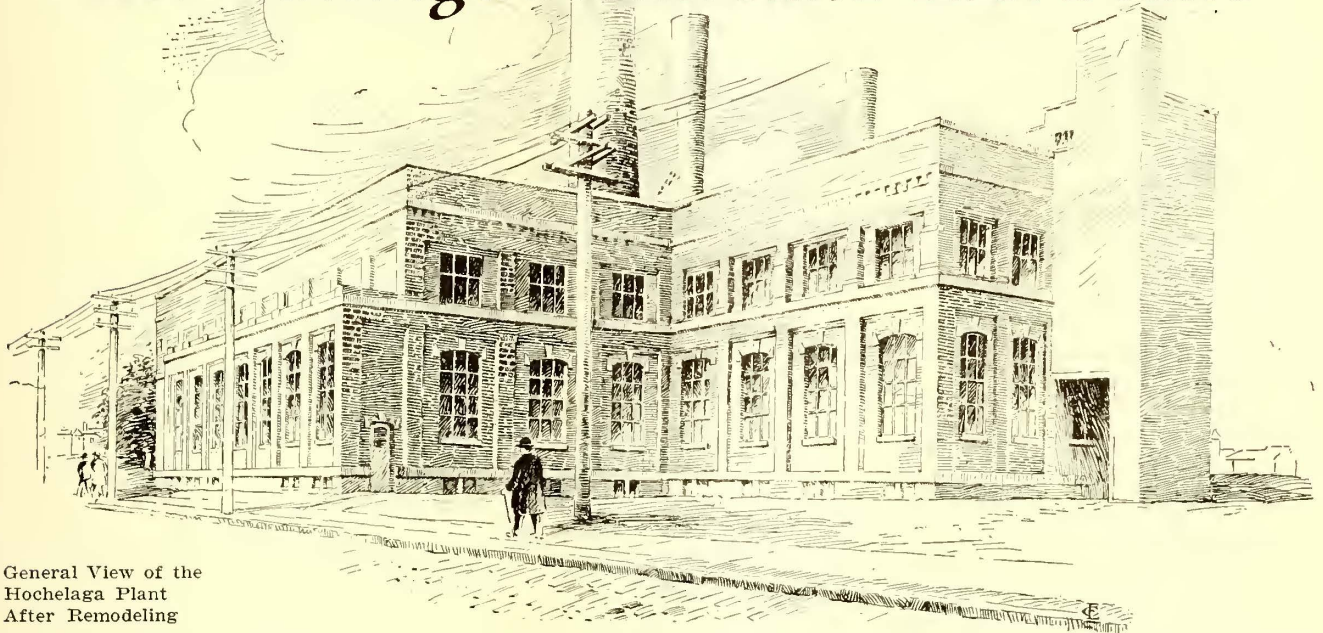
DIAGRAM OF STEAM PIPING WITH OUTLINE OF POSSIBLE FURTHER IMPROVEMENTS



X=STATION OIL SWITCHES
 Y=GENERATOR OIL SWITCHES No. 2
 Z=FEEDER OIL SWITCHES

PLAN OF STEAM TURBINE END OF ENGINE ROOM

Remodeling The Hochelaga (Montreal) Power Plant



General View of the
Hochelaga Plant
After Remodeling

THE CHANGES which are going on in the main power house of the Montreal Tramways, Montreal, Quebec, are typical of conditions on all progressive properties where obsolescence is forcing the retirement of engines which in their day were in the front rank of progress. Accompanying the changes in the engine room of this power house are others just as important in the boiler room and in the control and distributing section of the plant.

The relation of the Hochelaga power plant to the general power system at Montreal was outlined in articles printed in this paper on Jan. 12, 1918, page 72, and on March 9, 1918, page 449. On page 74 of the first issue mentioned was a brief statement of the changes in progress in the power plant itself. In the present and last of the series of three articles on the power situation at Montreal some further details and the engineering considerations entering into the rehabilitating process form the basis of discussion.

From the earlier articles it will be remembered that the Hochelaga steam plant was built in the eastern end of the city of Montreal in 1906 to take care of relay power requirements in the eastern and northern sections. It was built as a standby, the principal dependence of the Tramways for energy being upon the local abundant water power. The units which were installed at that time, two 1000-kw. and one 2000-kw. marine type compound McIntosh & Seymour direct-current sets, were model machines for the time. One of these machines can be seen in the background in a photograph reproduced on page 1089.

In the selection of the Hochelaga power plant for improvement as part of the general power rehabilitation plan, its convenient location with respect to circulating water for the condensers was an important consideration. As can be seen by reference to the map on page 73 of the Jan. 12, 1918, issue, the plant is located close

to the St. Lawrence River. While not at the center of gravity of the power system it is within economical transmission distance of all the substations and, as it is to supply only relay power, the remoteness of location from the gravity center of the system is not important.

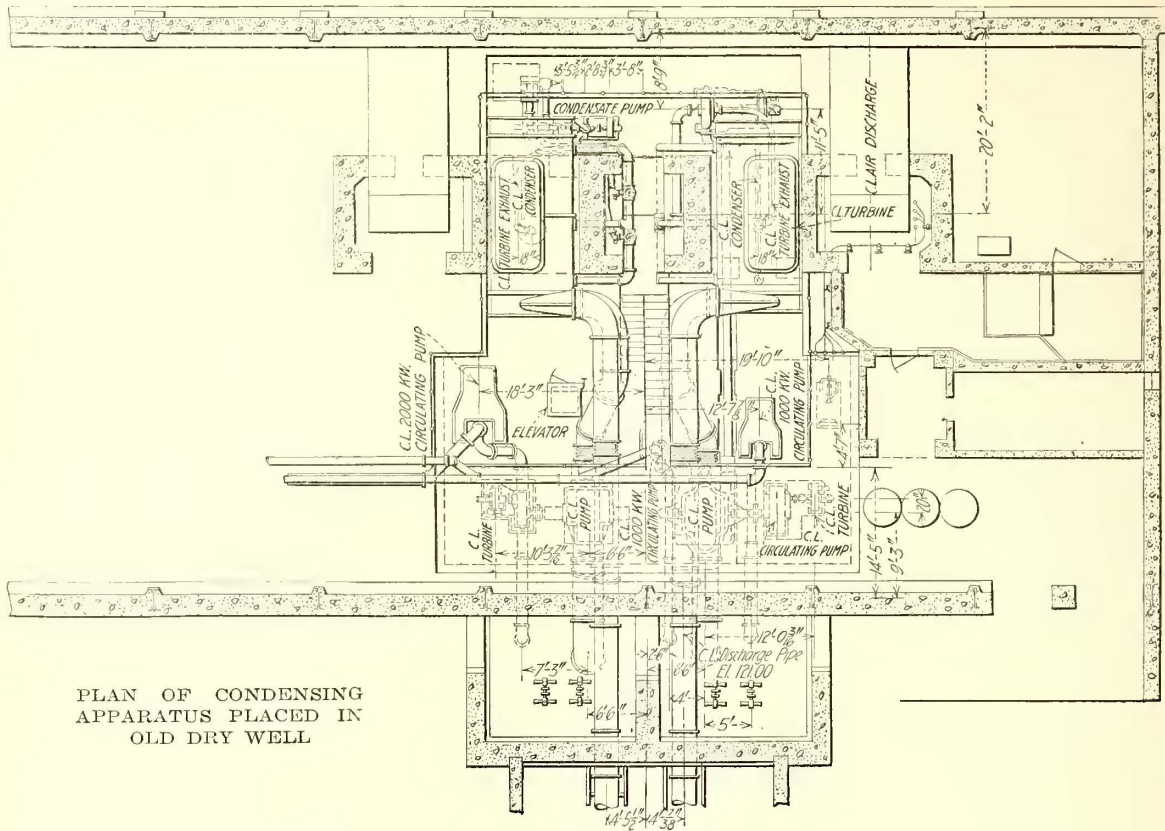
TURBINES ARE THE LARGEST IN CANADA

The plant has been laid out for the final installation of four 15,630-kva. turbo-generators if it is desired to continue the development along present lines. At present one unit is in position and operating, while the second is in process of installation. These two turbines will take care of requirements for some time to come, and the detailed plans for further improvements will not be made for the present.

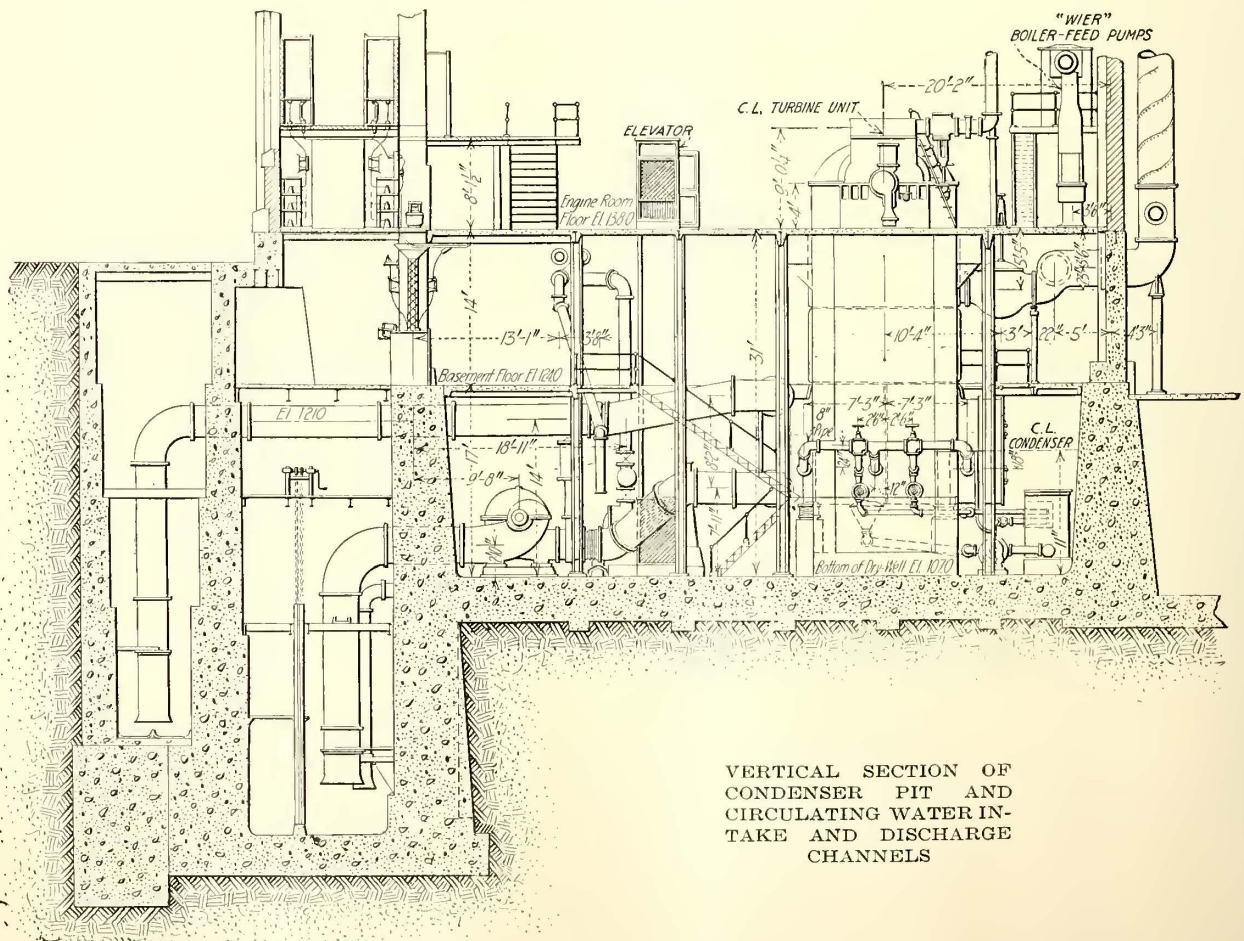
The present turbines are so far the largest that have been installed in Canada. As located they will furnish a striking example of the great increase in capacity and reduction in cost resulting from the use of turbo-generators. The accompanying boiler room changes illustrate also the development that has taken place in the last ten years in boiler and stoker practice.

Elaborating a little upon the last point it may be mentioned that the original designers evidently planned that the station should be symmetrical about the transverse axis through the dry well and chimneys. They probably did not intend to install more than two additional engine units of about 2000-kw. capacity each, making the ultimate capacity about 8000 kw. Now by extending the engine room a single bay, ample space has been provided for an ultimate development of 50,000 kw., or about four times as much, based on overload ratings of the engine sets for peak loads.

In the new work so far as practicable the rearrangement is being carried out on the unit plan, with respect to the apparatus serving each main turbine unit. Thus the boilers, heaters, feed pumps, condensing apparatus,



PLAN OF CONDENSING APPARATUS PLACED IN OLD DRY WELL



VERTICAL SECTION OF CONDENSER PIT AND CIRCULATING WATER INTAKE AND DISCHARGE CHANNELS

air washers, etc., will be installed in groups. This feature is illustrated in the drawing of the main and auxiliary steam piping, reproduced on page 1084. Incidentally this drawing shows how the engine room was blocked out in a general way with possible future extensions in mind, although as stated before specific plans for the future have not been made. A general plan was, however, considered desirable in connection with the installation of the first turbine so that the progressive steps should all form part of the final results with as little wastage as possible.

A number of drawings have been reproduced herewith to show the general layout of the turbine room and particularly of the auxiliaries. The turbine units are General Electric-Curtis machines producing three-phase power at the transmission voltage of 13,200. Thus no step-up transformers are required in connection with them. The water rate of the turbines at full load is approximately $12\frac{1}{4}$ lb. per kilowatt-hour when supplied with steam at 190 lb. per square inch pressure and 150 deg. Fahr. superheat. The foundation pier underneath the turbine end bearing is 31 ft. long and that underneath the generator is 14 ft. long. The latter has the usual form of a hollow box. The turbine pier is in the shape of a channel and is so designed that it could be united with a similar pier under the second turbine which will be adjacent, thereby also forming a hollow pier. However, the present foundation has proved so satisfactory that this provision for uniting with the other pier will not be made use of. Particular attention is directed to the arrangement for circulating the air from the turbines to the furnaces. In the turbine room plan, page 1084, is seen an air intake chamber which draws air from outdoors at a point about 8 ft. above the ground-floor level. The air passes through the turbine and is discharged into the boiler room basement behind the boiler foundations. This arrangement effectually muffles the noise and at the same time supplies warm air to the stoker blowers.

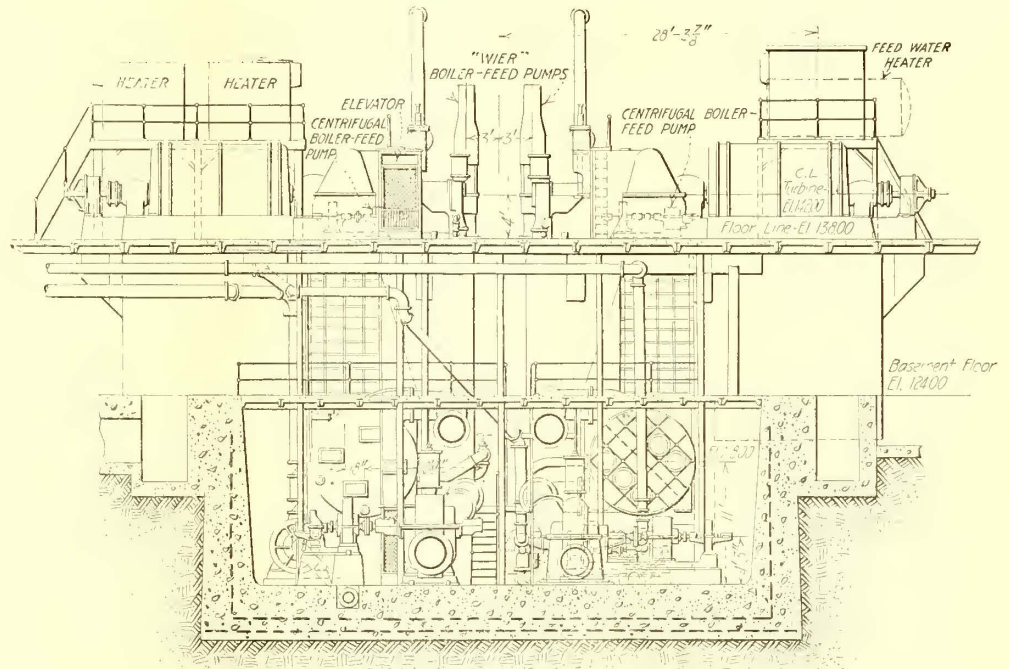
SAVING ONE-HALF THE POWER IN CIRCULATING THE CONDENSING WATER

A study of the cross-section on this page will show an unusually deep location of the condensers. They are so located for the purpose of saving power in circulating the condensing water. The St. Lawrence River at Hochelaga has had a flood height of 123 ft. elevation and an extreme low level of 92.35 ft. elevation, a difference of nearly 31 ft. This accounts for the depth of the dry well originally constructed in the engine room to

accommodate the circulating pumps for the barometric condensers of the reciprocating engines.

The principal problem met by the engineers in connection with the installation of the present and immediately prospective turbines was to make use of this dry well for the new condensing equipment so as to secure siphon circulation at all stages of the river. To have placed the condensing equipment in the engine room basement, as in the ordinary arrangement, would have entailed an extra pumping head of 20 ft., and would have required 250 hp. per condenser for pumping instead of 125 hp. and an annual cost for extra steam alone of at least \$6000 based on operating one-half the time.

By the arrangement shown in the drawing, it was possible to obtain siphon circulation at a maximum pumping head of 22 ft. under the most unfavorable conditions, which would occur at extreme low water when



VERTICAL SECTION OF CONDENSER PIT SHOWING TRUNKS FROM TURBINE EXHAUST AND REINFORCEMENT OF DRY WELL FLOOR

two turbine units are taking circulating water through the existing intake and discharge conduits. This required the placing of the condenser nozzles 14 ft. below the turbine exhaust, with a cast-iron connecting trunk between, and the construction of a somewhat unusual foundation for the turbo-generator. It also required constructing a new discharge well just outside the old dry well and running a new discharge conduit at a lower level under the street to connect with the original conduit at its lower level.

The entire weight of this exhaust trunk and the condensers, and part of the circulating piping with the contained water, is carried on four sets of springs under the condenser feet. The details of this arrangement were carefully worked out for all conditions to avoid undue thrust on the turbines. This feature was cared for by the condenser manufacturer who supplied the springs and the jacking plates.

The total range of motion of the above-mentioned supported weight may be $\frac{1}{2}$ in. As the piping connected

to the condenser is subjected to the same motion, the main circulating pumps are provided with multi-corrugated copper expansion joints. The smaller piping for air and condensate is designed to be sufficiently flexible by the use of bands.

Before we leave the subject of the dry well it may be noted that the pier which carries the weight of the turbine end of the unit rests on the dry-well floor. To distribute the load of this pier over the floor of the original dry well a heavily reinforced-concrete mat was installed in the bottom of the dry well covering the entire area below the condensers.

The surface condenser used with the first unit, together with the necessary auxiliaries, is of Alberger make. A C. H. Wheeler condenser will be used with the second unit. These condensers and their auxiliaries are of standard types. In connection with them tanks are provided to supplement the feed water heaters to avoid overflow and loss of condensate. These tanks are so piped that the ordinary source of makeup is from the warm water discharged from the turbine bearings and oil cooler.

NOVEL COMBINATION OF EQUIPMENT IN BOILER PLANT

The particular combination of draft apparatus, economizers and stokers installed at Hochelaga is said to be the second of this particular type on the continent. It embraces a combination of the low-ejector type stack, steel tube economizers and chain grate stokers of relatively large grate area set in a furnace embracing the entire base of the boiler, that is, the full tube length and breadth. To provide for the increase in boiler capacity made necessary by the installation of the turbine units four 1100-hp. Babcock & Wilcox marine-type boilers

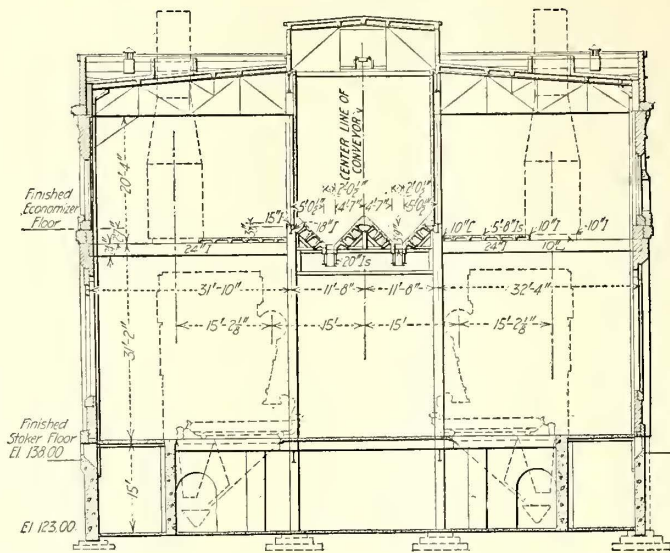
were installed, and equipped with superheaters, economizers and ejector drafts, as just mentioned, the drafts being furnished by motor-operated fans. Still further to increase the boiler house capacity, the output of the older boilers is being increased by the addition of induced-draft fans, under-feed stokers replacing the present chain grates, etc. By these improvements the steaming capacity of the old boilers will be at least doubled, and better use will be made of the economizers which accompany them.

By extending the boiler house to its ultimate size and later adding another stack, and particularly by the removal of the chain grate stokers from the old boilers, ample steaming capacity will be available eventually to handle the peak load of 50,000 kw.

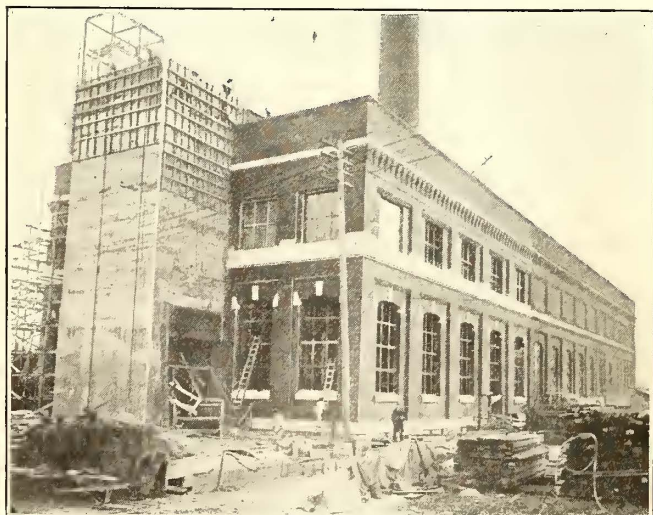
The rating of the new boilers corresponds closely to the maximum rating now commonly used in connection with turbo-generators and electrical apparatus. The rating of the unit corresponds to 1080 boiler horsepower on the Centennial rating. The heating surface of the boiler alone is about 5620 sq.ft. Disregarding the economizer this corresponds to 1.9 times the ordinary full-load rating of a boiler. For coal of 13,500 B.t.u. and 70 per cent combined efficiency of grate, boiler and economizer, the rate of combustion is 17 lb. per square foot of grate surface at the rating of the unit.

BOTH MOTORS AND TURBINES ARE USED FOR AUXILIARY DRIVE

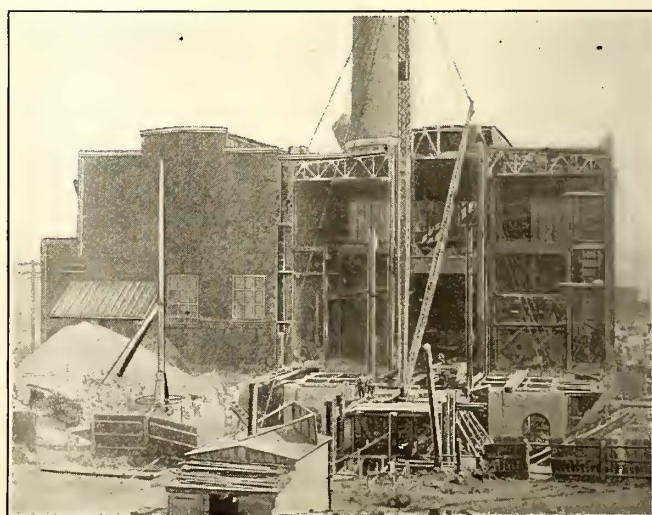
To make good use of the economizers forming a part of the boiler units in supplying the first turbo-generator, it was important to restrict the amount of auxiliary steam. On the other hand it was desired to provide enough steam even in winter to maintain a feed tem-



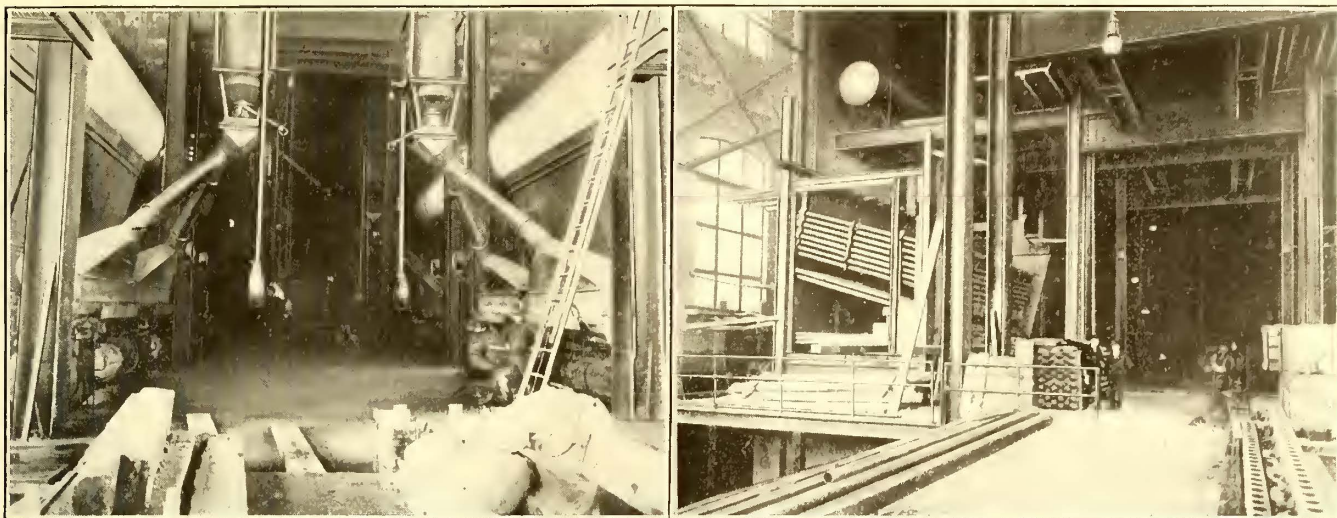
DIAGRAMMATIC CROSS SECTION OF BOILER HOUSE WITH DIMENSIONS OF PRINCIPAL FEATURES



PROGRESS PICTURE SHOWING EXTENSION OF POWER PLANT BUILDING



PROGRESS PICTURE SHOWING THE SEVERAL SECTIONS OF THE BOILER HOUSE



CONSTRUCTION VIEWS IN THE BOILER HOUSE SELECTED TO SHOW, AT THE LEFT, EQUIPMENT FOR FURNACE COAL SUPPLY, AND AT THE RIGHT THE STRUCTURAL STEEL FRAMING

perature well above the point at which injurious sweating would occur on the steel economizer tubes.

To meet these requirements both motor and turbine drives were used for auxiliaries. Some adjustment was provided to accommodate the summer and winter requirements, as well as variable load on the entire unit, by piping the exhaust from the turbine which drives the combined air and condensate pumps so that it may discharge to the open heater or into an intermediate stage of the main turbine.

CONTROL APPARATUS WAS PLANNED FOR THE FUTURE

The arrangement of the switchboard gallery in the Hochelaga plant before remodeling lent itself admirably to the addition of the alternating-current switching apparatus. The new arrangement can be seen in the turbine room plan on page 1084 and in the photographs on this page. For the circuit control General Electric motor-operated H6 switches were installed, and the usual modern arrangement of brick bus chambers, disconnecting gear, Tirrill regulators, etc., were provided. An Edison storage battery furnishes power for the remote-control power supply.

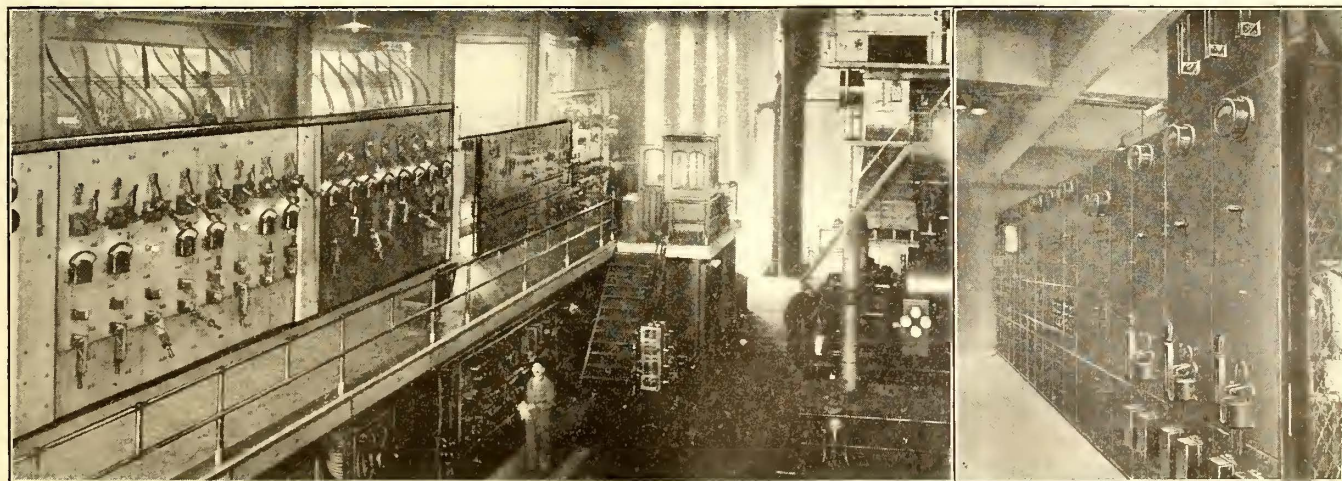
The main control panel was placed on the gallery opposite the operator's desk, while the switch gear was easily accommodated under the gallery. The direct-

current feeder panels, seen in the photograph but not in the drawing which was reproduced to show only the improvements, were left undisturbed in their position on the gallery. The 600-volt d.c. busbars were formerly in the basement, but by a very simple rearrangement of floor levels they were placed above the switchboard thus minimizing the amount of copper required and getting the bars out of the way. In view of the possible ultimately large development of the plant oil switches of unusually large rupturing capacity were selected.

The turbine room contains a 2000-kw. steam turbine which has heretofore been used in connection with a rotary converter. Its voltage is but 2300 so that, to enable it to supply power to the high-tension system, it has been necessary to install a transformer to raise the voltage from 2300 to 13,200. A 3000-kw. unit is used for this purpose.

Power leaves the plant over No. 0000 three-conductor, round-conductor cable, with 1/4-in. insulation, and 1/2-in. paper jackets. This cable has a capacity to carry 4000 kva., which is the capacity of two substation units. This cable was fabricated by the Northern Electric Company, and in connection with it cable potheads of Standard Underground Cable Company's make are employed.

In concluding this series of articles on the power situation at Montreal it may be well to reiterate the



AT LEFT, SWITCHBOARD GALLERY WITH CONTROL PANELS IN THE BACKGROUND. AT RIGHT, ALTERNATING-CURRENT PANELS UNDER GALLERY

earlier statement that this work has been carried out in accordance with a comprehensive plan. Much of the transmission system has been placed underground in conduit of the best possible construction, attractive substations have been built with architecture designed to render them harmonious with their surroundings, provision has been made to utilize to the fullest possible extent the water power of the neighborhood, and finally the Hochelaga steam plant has been put into shape to furnish reserve power at the minimum possible cost.

All of this work has been carried out under the immediate supervision of W. F. Graves, chief engineer Montreal Tramways, with the collaboration of K. B. Thornton, consulting engineer, and the construction engineering department of the General Electric company. The installation of the second turbine in the Hochelaga plant, which is to be completed this summer, will practically finish the work contemplated for the present. It will round out the program which has been in progress for several years.

Rates and Wages Discussed at Iowa Convention

Iowa Association Holds Two-Day Meeting—Joint Meeting with N. E. L. A. on May 31—Officers Elected

THE Iowa Electric Railway Association held its annual convention at the Hotel Chamberlain, Des Moines, on May 31. There was no printed program and no definite papers were scheduled. The morning session took more the form of a round table discussion with interest entered on the topics of labor conditions and rates. The general opinion of the men assembled was that the only solution to the interurban railway problems was for the government to consider these roads as "affiliated railroads" with the steam lines, grant them the same passenger and freight rate increases and give them a proper amount of business but not take over their active operation.

During the discussion on wages, the representative of one property stated that men coming into the employ of his company signed an agreement not to join a union but that a few weeks ago the employees had become unionized. He mentioned that he had seen an article in a recent issue of the *ELECTRIC RAILWAY JOURNAL* stating that the Nashville Railway & Light Company, Nashville, Tenn., had been granted an injunction by the court to prevent its employees from unionizing and that his company was investigating to see what it could do in this respect.

During the discussion on fares it was proposed that rates should depend upon the amount of riding done by any particular patron, *e.g.*, that the basic rate should be 10 cents per ride for visitors and occasional riders, with, say, five rides for 25 cents for regular patrons and residents. The idea did not apparently receive favor, as it did not bring forth discussion.

RATE INCREASES

The afternoon session was held in unison with the Iowa Section, N. E. L. A., holding its convention at the same hotel on May 31 and June 1. The topic was a discussion of rate increases, led by F. A. Warfield, rate spe-

cialist Illinois Traction System, Peoria, Ill. Mr. Warfield spoke at length on four points, *i.e.*, the national aspect of the present conditions under which utilities are operating, the peril of the situation to the utilities, the extent to which the local communities shared a rate increase equally with the utility and the fact that present conditions are a test of commission regulation. Mr. Warfield believes that valuation should be dispensed with at this time in the consideration of fare increases.

Speaking of the Illinois Traction System, some of the points brought out in the discussion were that increases had been requested for electric, gas, heating and railway service in every town in which this company operates, that in the matter of emergency increases every request had been granted in full with the matter of valuation and appraisal waived, but that to obtain permanent increases, valuation and appraisal had been requested with a financial report covering the past five years. A 6-cent fare has been granted in these towns and is being sought in two others, while the company is considering asking for an 8-cent fare on one property. Increase requests are based on a percentage depending upon the service requirements of the town, a 7 per cent return being held necessary on the investment over and above 4½ per cent for depreciation. Upon being questioned, Mr. Warfield unhesitatingly stated that his company much preferred the commission regulation of Illinois to the municipal regulation of Iowa.

OFFICERS ELECTED

Following the joint session the following officers of the Iowa Electric Railway Association were elected: President, C. E. Fahrney, general manager Ottumwa Railway & Light Company; vice-president, F. J. Hanlon, general manager, Mason City & Clear Lake Railroad, Mason City; secretary and treasurer, H. E. Weeks, secretary Tri-City Railway & Light Company, Davenport.

Don't Help the Kaiser

THE Northern Ohio Traction & Light Company, Akron, Ohio, has recently been using a series of sixteen patriotic safety posters as part of a city safety campaign. The safety director of the city asked the company to help secure better observance of the traffic laws. Through the civic committee the company procured prints of accident drawings and E. Burt Fenton, publicity agent of the company, wrote the text.

It was generally agreed that all of the publicity matter should have a patriotic tinge. Accordingly such slogans as the following were used on the cards:

"It cost Uncle Sam his [the pedestrian's] services for a long time and helped the Kaiser that much. Don't gamble with your life!"

"While he was laid up he was aiding the Kaiser. Be your own traffic cop."

"The Kaiser welcomes all these little accidents as a first aid to autocracy. Why play his game?"

"The Kaiser was pleased when they all went to the hospital—except those the undertaker got. Avoid close shaves."

The cards were placed in the street cars of Akron and most of the interurban cars running into the city. A little later the same series will be used in Canton and Massillon.

Federal Government Can Raise Utility Rates*

Under Welfare Clause of Constitution, Washington Has Paramount Power to Regulate Local Utilities Because of Their National Essentiality Under War Conditions — Banks Should Not Shirk Duty of Financing Utilities

BY P. H. GADSDEN

Resident Washington Member American Electric Railway Association War Board

THE whole war program for which the industries of the country are now mobilizing is predicated on continuous and, in most cases, increased service from the public utilities. This fact has just begun to be recognized by the general public.

The electric, gas and transportation utilities must be relied upon absolutely to furnish:

1. The increased demand for power, heat and light.
2. At least 20 per cent of the tonnage necessary for the prosecution of the war.
3. An important short-haul freight service to relieve the congested steam railroad conditions at terminals and industrial centers, together with more transportation facilities for the new army of workers engaged in the industrial cities being established by reason of war demands. More than 80 per cent of factory employees are now being transported daily by street and interurban railways.

NATIONAL USE MEANS NATIONAL REGULATION

The fact that the operations of any industry under the exigencies of war have become essential to the nation's welfare immediately impresses upon that industry a national character and justifies the federal government in exercising the federal power to regulate and control. To state it differently, the power of the federal government over an industry in time of war rests not upon the fact that such industry may or may not be engaged in interstate commerce, but upon the more comprehensive basis that such industry, under the demands of war, has become necessary to the nation's welfare. When such a situation has been created, the power of the federal government, certainly during the period of the war and for a reasonable time thereafter, is paramount to that of the state.

In pursuance of these general principles, we have seen the government progressively fix the prices of wheat, milk, sugar, etc., through the Food Administration; of anthracite and bituminous coal, and coke, through the Fuel Administration; and of pig iron, aluminum, steel, cement, lumber, hides and leather, and a large number of other basic articles, through the price-fixing committee of the War Industries Board. Within the last few days a Textile Administrator has been appointed, with large powers over the entire textile industry of the country.

Prior to the war the federal government did not possess the power to regulate the prices of these articles. How then has it been derived? From the increasing necessities of the situation. As each article in turn

becomes more and more necessary to the nation's welfare and more and more intimately connected with the prosecution of the war, it comes within the sphere of federal control and becomes impressed with such a national character as to justify the national government in regulating and controlling it.

I am not at this time making a plea for government control of public utilities. Personally, I think that such action on the part of the government should only be taken as a last resort after all other measures of relief have first been tried. I am seeking to direct attention to the fact that the power exists both to fix rates and to control the operation of public utilities.

We have seen both powers exercised by the government in recent months. In the case of coal, copper, sugar, aluminum, tinplate, etc., the necessities of the situation have up to this time been satisfactorily met by fixing the price. On the other hand, in the case of the railroads, we have the most striking illustration of the inadequacy of the regulation by price fixing. When it became apparent that the regulation heretofore exercised by the government did not meet the situation, the government unhesitatingly took the next step deemed necessary fully to meet the needs of the war program.

While so far as I know there is no disposition on the part of the Administration at this time either to take control of utilities or to regulate their rates, I think there is a growing recognition of the fact that the power to do so exists under the Constitution. If in the future conduct of the war the interests of the nation should make either course of action necessary, I do not believe there will be any hesitation on the part of the government to act. Whether such action should be taken by the government will, and should, depend solely upon the needs of the nation as they develop from day to day in the prosecution of the war. The necessity will create the authority to act.

NATION-WIDE MOVEMENT FOR HIGHER RATES

The recognition by the President and the Secretary of the Treasury of the intimate relation of the gas, electric railway, and electric light and power industry to the whole war program, with the establishment to their satisfaction that the operations of these utilities are essential to the nation's welfare in time of war, has encouraged a nation-wide movement for increased rates. The United States has been divided into eight districts, and in each district a regional committee has been appointed to present to the public service commission in each state the critical condition of public utilities, the essential nature of their functions to the whole war program and the imperative necessity for increased rates from a national viewpoint.

*Abstract of address delivered in New York on June 6 before joint meeting of American Gas Institute and National Commercial Gas Association, called for purposes of amalgamating these associations into the American Gas Association.

Such representations have already been made before commissions in a number of states, and there has been a gratifying response on the part of some of the commissions. In non-commission states, committees have been appointed to present the situation to the governors and to the state Councils of Defense, Chambers of Commerce and municipal bodies. Here, too, the efforts have met with a considerable measure of success.

The results, while encouraging, are not sufficiently general to afford the relief required. There is no doubt that many companies will fail to secure the necessary increases of rates unless the national government is willing to come more directly and practically to their relief. In his letter to Secretary McAdoo, the President, evidently anticipating just such a situation, said:

"I shall be glad to have you communicate with the local authorities whenever the information in your possession suggests that such a course is desirable and in the national interests."

We are still in hopes that the action not only suggested but authorized by the President will be put into execution. If the wishes of the President can be brought directly and officially to the attention and consideration of the regulatory bodies of this country, there will no doubt be prompt and cheerful response on their part.

In this connection, it is interesting to note the attitude of cities as to rates of municipally owned and operated utilities. It has not been practicable to secure a complete list of all increases in such rates, but records show that more than seventy municipal plants have already made substantial increases.

BANKS HAVE FINANCING DUTY TO PERFORM

Utilities have for months been looking forward to the organization of the War Finance Corporation to afford relief in financing maturing obligations, and in securing new capital required to make enlargements and additions made necessary by the war program. It was confidently expected that public utilities as a class would be recognized as coming under Section 9 of the act and be treated as an "exceptional case," and that the directors would feel authorized to make direct loans to them.

We have been greatly disappointed over the construction placed upon this section of the act. The directors in a statement on May 28 set out the policy and the purpose of the act as construed by them. [ELECTRIC RAILWAY JOURNAL, June 1, page 1069.] This means that little, if any, aid can be expected by direct loans, and that public utilities must seek advances from the banks to take care of their maturities.

There is an impression in Washington that public utilities have not exhausted their efforts through the ordinary banking channels. The board is by no means satisfied that the necessary accommodations cannot be secured from the banks. It is incumbent upon utilities, therefore, to make every effort to induce the banks to co-operate with the government in assisting companies to protect maturing obligations, and, in turn, getting assistance from the War Finance Corporation under Section 7 of the act. In this connection the banks of the country have a plain duty to perform which they cannot afford to shirk and which in proper and meritorious cases they will not be allowed to escape.

Should it prove to be impracticable to obtain the neces-

sary relief from the banks under Section 7, and it is further established that a *bona fide* effort has been made by the public utilities along those lines, then consideration will have to be given by the banks, the companies and the government to such amendments of the act as will afford the relief which the act was intended to provide and which the necessities of the situation absolutely demand.

LESSONS TO BE DRAWN FROM THE PRESENT SITUATION

1. The present system of rate regulation has broken down. It was admittedly designed to regulate rates downward, and it is not adapted to granting prompt relief to meet violent changes in operating costs. Under conditions which existed before the war, the costs of labor and material were looked upon as a constant factor, and the only variable factor recognized was the capital employed. No provision was made for unusual variations in the prices of labor and material. After the war we should strive for and insist upon some system of rates more quickly responsive to conditions—some system which, under definitely fixed conditions, will work automatically.

2. We must, as far as possible, retain the community of interest which has been brought about by the war. We must recognize that the fixing of rates for a given company in a particular state is a matter common to all public-utility interests in that state and should not be left to be handled alone by the industry affected.

3. We must preserve the national aspect and character which is now so generally recognized. After the war, our efforts should be directed to impressing upon the public mind that we are just as essential to the social, economic and industrial life of the community in peace as in war, and that the maintenance of public service facilities in a high state of efficiency is a necessary part of the preparedness of the nation, not only for war hereafter should it come, but also for the great industrial strife certain to come when this war is over.

Guarantee versus Regulation

Mr. Mortimer Discusses Massachusetts Plan— Would Not Be Surprised if Federal Government Took Over Power Systems

STATE ownership or guarantee of the integrity of public utility investments must come if the properties are to continue to grow and meet the needs of the communities served. This is the opinion expressed by J. D. Mortimer, president North American Company, following a decision by the Wisconsin Railroad Commission granting an increase in fare to 5 cents for the subsidiary city lines in Milwaukee but failing to grant relief for the suburban lines. A summary of this decision is published in the news section this week.

COMMISSIONS ARE WORKING THEMSELVES OUT OF JOBS

Mr. Mortimer is quoted as follows:

"The more I see of regulation, the more convinced I am that the commissions are rapidly working themselves out of their jobs. Regulation seems to satisfy the politicians as long as the tendency of rates is downward, but regulation apparently becomes entirely unsatisfactory to these same people when regulation of rates is upward. For the purposes of political dis-

(Continued on page 1093)

Service-at-Cost Offered to all Massachusetts Electric Railways

Legislature Enacts Measures Providing for Public Control of Bay State Street Railway and State Directors of Other Roads Accepting Service-at-Cost Plan—Membership of Public Service Commission Reduced from Five to Three

FOLLOWING close upon the passage of the Boston Elevated Railway public control act, accepted by the stockholders on June 3, the Massachusetts Legislature enacted two measures of great importance to the other electric roads of the state and established a basis for service-at-cost operation throughout the commonwealth. A special act (Chap. 188) provides for the public control of the Bay State Street Railway, and another new law (Chap. 280) offers all other electric lines in the state an opportunity to accept state supervision combined with service-at-cost, but without the same full management by representatives of the public which is provided in the Boston Elevated and Bay State cases.

BAY STATE PUBLIC CONTROL ACT

The Bay State public control bill provides for the organization of a new company to acquire the property of the present company at a judicial sale or otherwise, provided the plan is approved by vote of a majority of the directors and two-thirds of its stock. The new company is to be managed by five trustees appointed by the Governor and approved by the Executive Council. The trustees and their successors are to control the road for ten years, and each is to receive an annual salary of \$5,000. To pay for the property of the Bay State company, the new company may issue securities, but they

shall not amount in the aggregate to more than the investment value of the property, as given in the decision of the Massachusetts Public Service Commission dated Aug. 31, 1916, nor shall they represent an annual interest and dividend charge (common stock dividends being computed at the rate of 6 per cent) in excess of 6 per cent upon \$40,282,340, plus such amounts as may be determined by the commission to have been additions or improvements since the above date. The commission is to make further adjustments of the rate base which will represent present values on a 6 per cent basis of all rentals on account of street railway property leased by the company and included in the above computation. The value of any property sold or otherwise disposed of by the receiver prior to the organization of the new company is also to be deducted by the commission.

The new company is authorized to issue serial mortgage bonds not to exceed \$5,000,000 at any one time outstanding, payable in instalments within ten years. Amounts deducted from earnings otherwise applicable to dividends and applied to the redemption of serial bond instalments are to be capitalized in the form of common capital stock of the new company issued at par and distributed to stockholders to the extent that the stockholders do not receive such dividends in cash. Such shares are to take the place of serial bonds. The new

(Concluded from page 1092)

discussion, it is unwise for an office holder to admit that public utilities are subject to the same economic laws as the grocery store, the coal yard or the manufacturing plant; that is, that the selling price of the product should increase with the cost of production.

"Inability to procure promptly increased rates made it necessary for the State of Massachusetts to assume responsibility for the operation of the Boston Elevated Railway, and the same causes resulted in the receivership of the Bay State Street Railway and the formulation of legislation providing for its reorganization and the guarantee of returns by the State. Regulation is undergoing the same experience in other states. I agree with Mayor Hoan [of Milwaukee] that the present condition is decidedly unsatisfactory, but my remedy is different from his in that I advocate state ownership rather than municipal ownership.

FEDERAL GOVERNMENT MAY TAKE OVER POWER PLANTS

"It would not be surprising if the federal government took over first the control and later the ownership and operation of the central electric power systems in all the States. Many power companies are interstate in character, and the tendency is toward complete interconnection of power supply and transmission systems.

Electric power is now used so generally for motive-power purposes that it is one of the industries most essential in the conduct of war. Its control by the federal government is probable, particularly in view of the coming electrification of steam railroads.

"In order to permit state ownership of electric railways and gas companies, a constitutional amendment would be required; that is, an amendment that would permit the state to pledge its credit to procure the money necessary to acquire such utilities and to provide for their expansion.

NOT OPTIMISTIC ABOUT SUBURBAN LINES

"I am not very optimistic about our ability to continue to operate the suburban lines with the present rates of fare. The increases in operating expenses have been such as to leave a deficit in earnings on these lines without providing any interest on the \$1,500,000 which we have there planted. I am afraid that the plans upon which I was working in an attempt to continue the operation of these lines are not likely to mature.

"We are calling the attention of the public to the essential facts so that they will be able to judge and express their opinion as to whether they want the lines continued in operation."

company cannot acquire the Bay State company until the trustees are satisfied that provision has been made for the paying in of \$1,000,000 in cash by the holders of shares of the new company for rehabilitation of lines or other corporate purposes and for the immediate issue of serial bonds to the amount of \$2,500,000. From the proceeds of such sale \$500,000 is to be set aside as a reserve fund and \$2,000,000 is set aside to be expended by the trustees in additions, improvements or in the payment of receivers' certificates or notes for such purposes. Serial bonds to the additional amount of \$1,500,000 may be sold in the discretion of the trustees.

FINANCIAL AID OF STATE PROVIDED

If the earnings of the new company otherwise applicable to dividends are not sufficient to redeem the instalments of the serial bonds, not exceeding \$4,000,000, as they mature, the trustees will make up the deficiency out of funds received from the State Treasurer, who is required to purchase from the trustees an amount of serial bonds equal to the deficiency. The bonds so purchased are to be held for the benefit of the municipalities contributing to their purchase price. In case the treasurer of the state is called upon to purchase any serial bonds, the amount is to be contributed by cities and towns in which the new company operates. Pending such purchase by the State Treasurer of serial bonds, the trustees may borrow the money necessary to enable them to pay maturing instalments of serial bonds. The amount due for contributions by cities and towns for the purchase of serial bonds is to be added to the state tax next thereafter assessed upon the municipality, and the municipalities are authorized to borrow beyond their statutory debt limit to meet the assessment, provided the money is borrowed upon terms which will permit repayment on or before the maturity of the serial bonds.

The trustees have the right to fix fares, regulate transfers, determine the character of service and its extent, and in general operate the property after the manner of the usual board of directors, and without being subject in these respects to the Public Service Commission or any other state board. Provision is made for public hearings by the trustees, or by one trustee, in cases of service complaint. No contracts for the construction, acquisition, rental or operation of any additional lines or for the extension, sale or lease of existing lines can be entered into without the consent of the board of directors, unless, after such consent has been refused, the Public Service Commission determines that public necessity and convenience require such a contract and that the return on outstanding securities will not be impaired. In case of such determination the directors have the right of appeal to the Supreme Court of Massachusetts.

FLEXIBLE FARES PROVIDED

The trustees must fix such fares as in their judgment will provide sufficient income to meet the cost of service, which is to include proper maintenance and all other operating expenses, taxes, rentals, interest on bonds, serial bonds and other interest payments and stated dividends on the preferred stock and 6 per cent on the common stock of the new company, such allowances for depreciation, obsolescence, rehabilitation, losses in re-

spect to property sold, destroyed or abandoned as they may deem adequate or as may be required by the Public Service Commission, and all other lawful charges against income or surplus. They must also after a public hearing from time to time adopt and publish a schedule of at least four different grades of fare of which at least two shall be above and two below the schedule then in effect. The lines of the company north and south of Boston are to constitute two fare districts. The aggregate of the items entering into the cost of service of the new company is to be allocated by the trustees between the two districts for the purpose of estimating the basis for rates and fares. After notice and hearing the trustees are to make such further division of the two districts into smaller fare districts as they may deem reasonable and such further allocation of the aggregate of the items among the smaller districts as will in the trustees' judgment fairly distribute the aggregate so as to avoid as far as is consistent with the public interest and reasonably practicable the inclusion of such items in the computation of service cost in any fare district as may properly be laid upon territory outside of such a district. The trustees may from time to time after notice and hearing revise any such fare districts.

Any city or town by majority vote may from time to time for the purpose of preventing increases in fares or of reducing fares or of avoiding discontinuance or reduction of service enter into an agreement with the trustees in accordance with which the city or town is authorized to contribute, during the period of the war and for two years thereafter, to the cost of service any part or all of the increase in the cost of operation due to increased wages or the cost of supplies or coal, in excess of the average cost for the year ended July 1, 1914, as determined and apportioned by the trustees, provided that the contribution of a city shall not in any one year exceed the sum of 50 cents per \$1,000 of the preceding year's assessed valuation and that such contribution of a town shall not exceed \$1 per \$1,000 valuation. If part only of the municipalities in any fare district contribute to cost of operation in this way, the trustees may make such fare adjustments as appear equitable.

USE OF THE RESERVE FUND

The reserve fund is to be used for the purpose only of making good any temporary deficiency in income pending an increase of fares, and until such use may be invested at the discretion of the trustees. Excess income above the cost of service is to be added to the reserve fund.

If, at the end of March or any other quarter year, the amount of the reserve fund shall exceed by 50 per cent or more the amount originally established, plus such increases as may be made under the act, and during the preceding three months the income shall have exceeded the cost of service, the trustees are required, within thirty days, to put into effect a lower schedule of rates, and vice versa. The rates are to be decreased or increased quarterly as the amount of the reserve fund is above or below these limits. If in the discretion of the trustees it shall become advisable to increase the reserve fund at any time the trustees are authorized to

do so by the sale of securities, and the trustees are authorized, subject to the approval of the Public Service Commission, for the purpose of preventing undue increases of fares during the period of abnormal prices caused by the present war, to postpone making amortization charges and charges against earnings to cover depreciation until such period not exceeding one year after the termination of the war as they may fix.

After the expiration of the ten-year period of management and operation by the trustees the company is to have all the powers and restrictions of a street railway organized under the general laws and it must be willing to sell to the state or any political subdivision thereof at any time during the period of public control its entire property. The new company during the period of the war and for two years thereafter is not to be required except with the express approval of the Public Service Commission after a hearing to pay any part of the expense of the construction, alteration, maintenance or repair of any highway, street or bridge or structure maintained upon it, or of the abolition of any grade crossing or removal of surface wires to underground locations, although the usual cost of street opening for company work is to be met by the company.

No shares or securities of the new company are to be held by the Massachusetts Electric Companies or similar voluntary association for more than four months after the transfer of the Bay State property and franchises to the new company. The Supreme Court is to have jurisdiction in equity to review and modify or enforce order or rulings of the trustees.

SERVICE-AT-COST BY OTHER COMPANIES

The general service-at-cost bill as enacted is available to all electric railways in the State, except the Boston Elevated and the Bay State companies. Cost of service includes: operating expenses, taxes, rentals, interest on all indebtedness, dividends on preferred stock, 6 per cent interest on the stock investment as determined by the Public Service Commission, and such allowance for depreciation and obsolescence as may be fixed from time to time in the case of each company by the commission, and all other expenses and charges which, under the I. C. C. classification of accounts and under the laws of the State, are properly chargeable against income or surplus. "Capital investment" is defined as the amount of cash or fair value of the property paid for in securities and properly expended for capital purposes, such amount to be determined by the commission; but if the commission has approved the security issues, no further determination in regard to capital investment is necessary.

No company may accept this Act until it has provided a reserve fund of not less than 6 per cent or more than 12 per cent of the gross earnings of the preceding year, except as otherwise provided. This fund may be provided by the issue of securities. The reserve fund must at all times be segregated and used only for making up a deficiency of income, when the income of the company is insufficient to pay the cost of the service. The reserve fund may be invested in United States, Massachusetts State or municipal bonds. The reserve fund must be fully subscribed for upon

acceptance of the act by the company concerned but must be paid in not more than two years, as directed by the commission. Any company may furnish a larger reserve fund with the approval of the commission.

Any company desiring to accept the Act (Chap. 280, 1918 Legislature) is required, at the time of its application to the commission, to determine the amount of its stock investment, to apply to the commission also to determine the status of its then unfunded debt. The commission thereupon is required to disallow any amount which, in its opinion, was improperly incurred. Interest charges upon the debt so disallowed are to be borne by the company and charged to the amount which would otherwise be available as a return upon the stock investment. Interest charges upon the residue of the unfunded debt are to be included in the cost of the service.

When the income is less than the cost of service, the reserve fund is to be used to make up the deficiency, and if the cost of service is less than the income, the excess automatically becomes a part of the reserve fund.

Any company accepting the Act must file, with its acceptance, a schedule of nine different rates of fare and of transfer privileges. One such grade is designated as the initial grade which it desires to establish and which will, in its opinion, enable it to earn an income sufficient to meet the cost of service. Four other grades are to provide for progressive increases and four for progressive decreases in revenue, and each interval of increase or decrease must be calculated to increase or decrease the revenue by 30 per cent of the normal reserve fund. Within thirty days thereafter and after notice and public hearing, the commission must either approve of the schedule so filed or establish a schedule similarly designed, in place of it; but if during any period of sixty days, more than one company files its acceptance of the act and a schedule of proposed rates of fare, the commission is not required to approve or establish the grades of fare for any such company until thirty days after the Board shall have passed upon all such schedules, previously filed in accordance with this section. Whenever by reason of any change in the existing rate of fare, there are less than four grades above or below the rate of fare in force, the company must file with the board a schedule of added grades of fare, so that there will always be both above and below the existing rate of fare not less than four grades, and the commission must within sixty days either approve of the schedule so filed or itself establish a substitute for the necessary additional grades of fare.

If at any time it is in the interest of either the public or the company that the schedule shall be changed, either with regard to the method or the basis upon which fares and transfers are established, or because the steps between the different grades are too small or too great, or for any other reason, the company, with the approval of the commission, may change the schedule. Except as thus provided, the commission is given power to modify such a schedule only after it has been in effect for a period of one year, provided, however, that no modification of the schedule which diminishes the rate of return on the stock investment may be continued for more than four months.

If on March 31 or any other corresponding quarter termination, the amount of the reserve fund is less than 70 per cent of the normal reserve fund, and during the preceding twelve months the income has been less than the cost of the service, the company is required, within thirty days, to put into effect the next higher grade of fare, and the fare is required to be decreased or increased if the amount is greater or less than these limits as of such quarterly dates. The company, with the consent of the commission, may put into effect the next higher or lower grade of fare at any time when the reserve fund is less or greater than the normal amount.

The company is required to provide an improvement fund of an amount required by the commission but not exceeding 5 per cent of the capital investment. This fund may be raised by the issue of securities. It must be fully subscribed within sixty days after the determination of the capital investment of the company and is to be paid in from time to time as required by a plan of gradual improvement to be submitted to and approved by the commission. Any company accepting this act becomes bound, by its acceptance, to sell its entire property and franchise as a going concern to the State or any municipality therein, for an amount equal to the stock investment, plus the preferred stock, the purchaser assuming the bonds, contracts, leases, and all other outstanding liabilities of the company. The provisions of the act do not affect the right of the State or municipality to acquire, by right of eminent domain, the property and franchises of any company accepting the act.

The governor, with the consent of the council, is required to appoint for a term of three years, three persons, to be members of the board of directors of any company which accepts the act, of whom at least two shall be residents of a municipality served by the company, and none shall be an owner of its securities. Meetings of the directors must take place at least monthly, and in case such a board has an executive committee or finance committee, at least one member is to be one of the governor's appointees.

The commission must be furnished, monthly, with such statements as are required, including the condition of the reserve fund, the income and expenses of the present month, etc. The State is to be divided by the commission into street railway districts, and for each district within which one or more companies has accepted the act, the commission is to appoint one or more resident supervisors for terms of three years, their salaries and expense allowances to be fixed by the commission and paid by the company as an operating expense; or, if their duties extend to more than one company, apportioned among the several companies, as the commission may determine. It is to be the duty of the supervisors to keep in constant touch with the operation of the companies and to inform the commission of all complaints of the service. In case any special investigation is deemed necessary by the commission, it may order such an investigation at the company's expense. The commission may require such changes in the management or operation of any company which accepts the act as, in its opinion, may be necessary for the efficient conduct of the business of the company in the interests of the public. Any foreign

company furnishing electric light or power to any street railway operating under the act must file annually with the Gas and Electric Light Commission a schedule of all rates charged to its customers for power, when the electricity is furnished by a central plant to others than the railway company, and with such other information in such form as the Gas Commission may require. That commission is authorized to prohibit the transmission of electrical energy for either light or power, unless such information is filed as requested and the prices charged therefor are determined to be fair and reasonable by the Public Service Commission.

A majority stock vote is required for the acceptance of the act by any company. The Public Service Commission may permit any company to begin to operate under the act if it has met all other requirements except as to the determination of its capital investment, but no dividends on any common stock are to be declared until the commission has determined the capital investment. The commission may order the company to dispose of any property no longer of service to the company. Any loss thus incurred may be distributed over a period of not more than ten years. During the war, and for one year thereafter, the commission may authorize any company to set aside for depreciation a smaller amount than would be adequate in normal times.

If a majority of the State directors of a company believe that the order or decision of the commission would impair the ability of the company to pay 6 per cent on the stock investment, they must seek reconsideration, with final appeal to the Supreme Court of Massachusetts, which may appoint three commissioners to consider the facts and questions at issue, and whose decision shall be final.

PUBLIC SERVICE ACT ALSO CHANGED

By another Act (Chap. 283) the Public Service Commission is hereafter to consist of three members. The terms of the commissioners are ultimately to be three years each, and any commissioner may hold hearings in the name of the full board. The present board goes out of office July 1 and the Governor is required to appoint three members, two of which are to be members of the present board, to take office at that time.

Arkansas Utilities Hold Meeting and Adopt New Association Name

PATRIOTISM was the underlying theme of the eleventh annual convention of the Arkansas Association of Public Utility Operators at Hot Springs, Ark., on May 21, 22 and 23. Ringing addresses were delivered by the State Food Administrator, representatives of the fuel administration and State distribution of thrift stamps and by the Mayor of Hot Springs. S. E. Dillon, manager of the Hot Springs utilities, presided as president of the association. Among the technical papers considered those which attracted the most interest related to rate increases. The probability of Arkansas having a public utilities commission was also discussed. D. C. Green, vice-president and general manager Fort Smith Light & Traction Company, was elected president of the association for the ensuing year.

A shorter name, the Arkansas Public Utilities Association, was adopted.

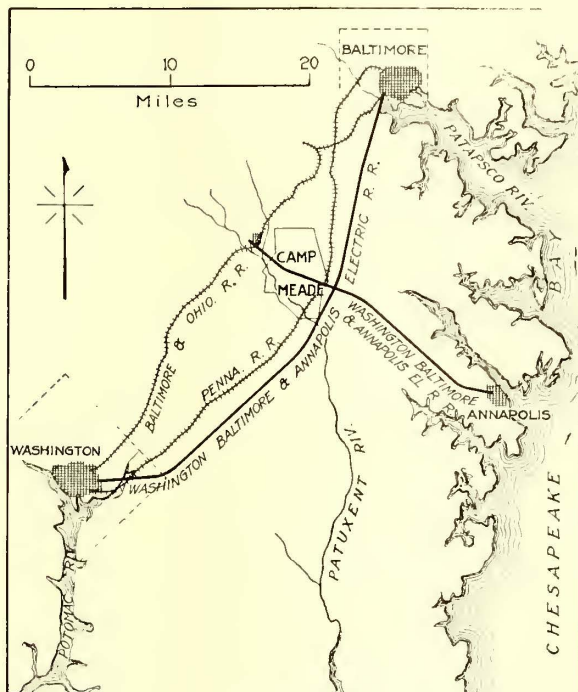
How an Electric Railway Serves a Cantonment

The Washington, Baltimore & Annapolis Electric Railroad Supplied the Land Upon Which Camp Meade Is Built and Is Now Caring for a Traffic Which Often Amounts to 17,000 Passengers a Day Each Way

IN 1838 the Annapolis & Elkridge Railroad was built between Annapolis and Annapolis Junction, and was one of the first railroads constructed in the United States. It was taken over by the Annapolis, Washington & Baltimore Railroad, and a little more than a decade ago the latter railroad was purchased by the Washington, Baltimore & Annapolis Electric Railroad, which constructed the line between Baltimore and Washington and electrified and rebuilt the old line between Annapolis and Annapolis Junction. The new company sprang into immediate popularity, and in addition to the large general and business travel between three such important centers as Washington, Baltimore and Annapolis, it has always enjoyed a large business from government officials and employees connected with the great government institutions in Washington and Annapolis.

Shortly after the United States entered the war, the management pointed out to the committee appointed to select camp sites for the training of the proposed National Army the desirability of a site on its line at Admiral for one of the proposed camps, at the same time furnishing the committee with full descriptions of the physical qualities of the land, facilities for water and other properties of the tract in which the committee was interested. The committee evincing interest in the site, the management of the railroad secured leases from the owners of the property and upon its acceptance by the government, the railroad sublet the entire tract to the United States government.

At that time there was only a single-track line between Annapolis Junction and Naval Academy Junction, the line passing through the camp site, and that was laid with 56-lb. rail. The first thing to do was to provide freight facilities by which the materials required for the construction of the camp could be taken to the site. The Pennsylvania and Baltimore & Ohio Railroads also needed access to the camp for freight, and the easiest way by which it could be supplied was by the use from Annapolis Junction and Naval Academy Junction of the electric road's right-of-way. An accompanying diagram shows the trackage and terminal system of the W., B. & A., the Pennsylvania and the B. & O. in Camp Meade.



MAP SHOWING CAMP MEADE AND RAILROADS WHICH SERVE IT

Active construction at Camp Meade was not begun until July 1, 1917, and by Sept. 2, 8500 carloads of material had been hauled into camp, besides the material required to change the original single-track 66-lb. rail along the Washington, Baltimore & Annapolis Railway to a double track laid with 85-lb. rails and to build a double-track line for the Pennsylvania and one for the Baltimore & Ohio Railroad with the sidings shown on the map. The Baltimore & Ohio line from Annapolis Junction to the camp was begun about July 20 and completed Sept. 15.

During this time, of course, a large number of men were required in the construction of the camp. Some of them lived at the camp, but from 2500 to 3000 men preferred to commute daily on the electric line. About 70 per cent of these lived in Baltimore, 20 per cent in Washington and 10 per cent in Annapolis. On Sept. 19, the electric line hauled into camp 25,000 troops, and this number has been growing until now the camp houses about 41,000 men. The government is now planning to increase the camp in size about 50 per cent.

TRAVEL TO AND FROM CAMP IS CONSTANT

At present the company is hauling to and from Camp Meade daily about 700 laborers, besides a large number of visitors. The peak of this load comes on Saturdays and Sundays when it has been the practice to admit visitors to the camp and also to give about half of the men in training twelve or twenty-four hours' leave. The travel into the camp amounts to about 17,000 persons on these days from Baltimore, and some 6000 from Washington and Annapolis. This is in addition to the travel of the soldiers themselves, which is of course in the other direction, and is about the same magnitude. The accompanying table gives the mileage and fares charged between Baltimore, Washington and Camp Meade, the fares in Washington including a transfer to the local system of the Washington Railway & Electric Company.

To haul this traffic the company soon found that its

	Distance in Miles	One-Way Fare	Round Trip Fare
Baltimore—Washington.....	40.54	\$0.85	\$1.50
Baltimore—Camp Meade.....	16.56	.45	.80
Washington—Camp Meade.....	25.98	.50	.90

former single-car schedule was inadequate. Consequently it purchased last year eight modern high-speed electric locomotives built by the Westinghouse Electric & Manufacturing Company and fifty-four modernly equipped trail cars.

This enables the company to run during the week an hourly schedule to the camp of trains with four or five

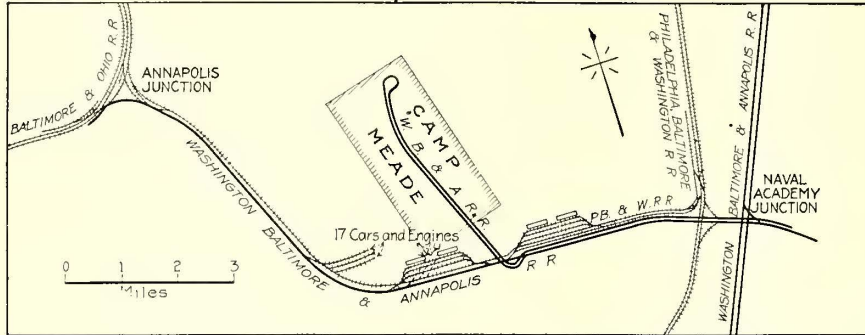
Baltimore. This building will occupy the greater part of the block bounded by Lombard, Eutaw, Pratt and Howard Streets and will have a floor area of 15,600 sq.ft. and a passenger track capacity of twenty-three cars.

The Washington, Baltimore & Annapolis Electric Railroad not only supplies all the passenger transportation but it also furnishes all of the electric energy for lighting and power purposes at Camp Meade.

This demand, with the fact that Congress last year authorized additions to the Naval Academy building at Annapolis to cost \$3,500,000 and to provide for an increase in attendance at the Academy of 1000 naval students, with a contract which the company has received to furnish electric energy necessary to operate a large radio station which the United States is planning to erect near Annapolis, has induced the company greatly

to extend its power equipment. The primary power for the operation of its cars, outside the city of Baltimore, is purchased from the Potomac Electric Power Company of Washington, but the transmission and substation equipment is owned by the railway company.

During the last year the company has enlarged its substation at Scott Street, Baltimore, by the addition of two 500-kw. rotaries, its Naval Academy Junction substation by the addition of one 750-kw. rotary, and Bennings substation by the addition of three 800-kw. transformers.



ELECTRIC RAILWAY LOOP AND OTHER RAILROAD CONNECTIONS AT CAMP MEADE

cars. On Saturdays and Sundays this headway is cut in half.

To care for the frequent traffic the company has equipped its entire line from Baltimore to Camp Meade with block signals, supplied by the Union Switch & Signal Company, and has installed a \$10,000 interlocking system, built by the General Railway Signal Company, at Naval Academy Junction.

The company has also constructed two large and commodious stations. The principal one, known as Loop Station, is located half-way between this civic center and Admiral, Md.

The belief that the government will continue the occu-

Watch Inspection by Pacific Electric

Records indicate that more than 2000 watches were inspected on the Pacific Electric Railway, Los Angeles, Cal., in 1917, all of which had to be maintained at standard. At least once every quarter, every employee in train service submits his watch to one of the twenty-six authorized inspectors who subjects it to a critical examination as to its mechanical condition which must be such as to insure a close rating and not to vary in excess of thirty seconds in one week. Twice a month he must have it compared with a standard clock by an authorized inspector and every fifteen months it must be cleaned and oiled.

As tangible evidence of the fact that the employee's watch has passed inspection and conforms to the company requirements, Webb C. Ball, general time inspector, has worked out a plan whereby the employee carries a card certificate on which, besides the facts concerning the make, grade, number of jewels, etc., are also entered the dates of every comparison with standard regulator; without these credentials an employee cannot continue in service.



CADETS AT ANNAPOLIS BOARDING SIX-CAR ELECTRIC TRAIN

pation of Camp Meade after the war has led to other extensive building plans. One of these is at its repair shops, where the company has constructed an addition of brick and concrete, covering 241 ft. x 46 ft., at a cost of \$45,000. Another important improvement under way is an extensive freight and passenger station in

The Twin City Rapid Transit Company, Minneapolis, Minn., last spring agreed to plow every available foot of ground on its lines, between St. Paul and Stillwater, St. Paul and White Bear and St. Paul and Mahtomedi, turning the ground over to the men operating the cars. In addition the company will haul the crops to the city for the gardeners.

Three Cents a Mile for Interurbans

War Board Urges Filing of New Tariffs to Raise Rates to Steam Railroad Figure or at Least Maintain Former Parity—Federal Railroad Administration Favors Immediate Action and Will Support Companies

WITHIN a short time electric interurban railways in the United States will probably increase their passenger and freight rates to correspond with the rates ordered by Director-General McAdoo for steam railroads. This means a raise of passenger rates to 3 cents a mile and an increase of 25 per cent in freight rates, or at least such an increase as will maintain the previous differential between electric and steam rates.

The national scope of the movement can be judged from the facts that the Electric Railway War Board is urging interurbans to file applications for the higher rates and that the United States Railroad Administration desires the electric lines to secure new rates effective simultaneously with the steam railroad increases and will support efforts to this end. City electric railways will not be affected, but it is expected that most interurbans will file new tariffs at the earliest possible date. Several companies have already arranged to do so. The War Board feels that local authorities should respond without delay where relief is needed.

RATE PROBLEM HAS BEEN HARD FOR INTERURBANS

The earnings of the interurban electric railways in the United States are derived chiefly from passenger traffic, generally more than 80 per cent and often more than 90 per cent coming from this source. As is well known, however, the passenger rates on the high-speed interurban lines as a rule are the same as those of the steam railroads, which in many states are restricted by law to 2 cents a mile. What this has meant to interurbans can be judged from the following survey of the recently existing situation.

Since in Ohio and Indiana the 2-cent fare laws did not apply to the interurban lines, the Public Service Commissions, recognizing the urgent need of immediate relief, recently permitted certain interurban companies to increase their fares to 2½ cents a mile. The results of this action, however, were disappointing because the steam lines competing between the same points offered the statutory and smaller fare of 2 cents a mile. As a result a material part of the interurban traffic, which is almost entirely intrastate in character, went to the steam lines. It was evident, therefore, that the interurban companies could not secure the necessary additions to their revenues through higher fares unless the fares of the steam railroads were increased at the same time.

The statutory rate of 2 cents per mile in various states had been fixed at a time when operating costs were far less than now. It was manifest that if such rates were justified when made, they were insufficient now. Indeed, the Interstate Commerce Commission recognized this fact, and it approved as fair and reasonable a steam railroad rate for interstate traffic of 2½ cents a mile.

But an anomalous situation was thereby created. The

fares paid by two passengers riding in the same seat on the same steam railroad train might be 2 cents per mile for one and 2½ cents per mile for the other, depending on whether the passenger was making an intrastate or an interstate journey. Such a difference in rates for identical service caused constant evasion of the law, it being common practice for interstate passengers to pay their fares in instalments at intrastate rates so as to avoid the through interstate rates.

By reason of the facts stated, it had become a matter of vital consequence to the interurban companies that the intrastate steam railroad rates be raised to the level of the interstate rates. With that done, the interurban companies would have a chance to meet the emergency confronting them. Otherwise they would have none.

REAL EMERGENCY CONFRONTS INTERURBANS

As to the reality of the emergency confronting the interurban electric railways of the country, there can be no doubt. Their expenses have increased in recent years to a greater extent than their gross revenues. The margin of safety was extremely small in almost every case even before the United States entered the war, and since that time it has rapidly approached or passed the danger point.

With the view, however, of ascertaining the exact situation of the interurbans, the War Board recently sent out to a large and representative list a blank for a five-year income statement and also the first quarters

COMPARATIVE INCOME STATEMENT OF 127 INTERURBAN ELECTRIC RAILWAYS

Items	1917	1913	Increase
Passenger revenue.....	\$183,925,488	\$152,923,648	\$31,001,840
Express revenue.....	1,911,044	1,644,071	266,973
Milk revenue.....	587,252	514,920	72,332
Freight revenue.....	12,715,270	7,386,879	5,328,391
Other transportation revenue.....	1,682,726	1,672,673	10,053
Total revenue from transportation.....	\$200,821,780	\$164,142,191	\$36,679,589
Revenue from other railway operations.....	6,925,543	5,229,628	1,695,915
Railway operating revenues....	\$207,747,323	\$169,371,819	\$38,375,504
Way and structures.....	\$20,376,854	\$15,423,315	\$4,953,539
Equipment.....	16,901,711	11,976,814	4,924,897
Power.....	29,598,661	57,881,906	27,681,698
Conducting transportation.....	55,694,943	970,496	*7,120
Traffic.....	963,376	15,433,900	5,182,273
General and miscellaneous.....	20,616,173	124,037
Transportation for investment.....	124,037
Railway operating expenses....	\$144,297,645	\$101,686,431	\$42,611,214
Net revenue from railway operations.....	\$ 63,449,678	\$ 67,685,388	* \$4,235,710
Auxiliary operations—revenues	\$ 15,589,699
Auxiliary operations—expenses.	8,849,333
Net revenue from auxiliary operations.....	\$ 6,740,366	\$ 6,740,366
Taxes assignable to railway operations.....	\$ 13,417,547	\$ 10,343,626	\$ 3,073,921
Operating income.....	\$ 56,742,497	\$ 57,341,762	*\$ 599,265
Non-operating income.....	10,082,693	8,969,002	1,113,691
Gross income.....	\$ 66,825,190	\$ 66,210,764	\$ 514,426
Deductions from gross income..	57,009,010	45,082,768	11,926,252
Income balance.....	\$ 9,816,180	\$ 21,228,006	*\$11,411,826

*Decrease.

of 1917 and 1918, and a blank for fuel costs, traffic statistics and financial data. Part of the collated data resulting from this research are reproduced herewith.

The statement on page 1099 for 127 interurbans, for example, shows that between 1913 and 1917 the passenger revenue gained \$31,001,840, but the railway operating expenses increased \$42,611,214. Taxes rose \$3,073,921, and income deductions \$11,926,252, with the result that the net income fell from \$21,228,006 in 1913 to \$9,816,100 in 1917, a loss of \$11,411,826.

An examination of the returns of twelve important companies for the years 1913 and 1917 and for the first three months of 1917 and 1918 showed even more startling results. The net income was \$4,111,000 in the year ended June 30, 1913, and only \$656,000 in the year 1917, notwithstanding the fact that the railway operating revenues in 1917 were \$4,000,000 greater than in 1913.

In the three months ended March 31, 1917, the net income was \$318,000, but in the three months ended March 31, 1918, the charges exceeded the available income by \$533,000. In other words, the income statement for the first quarter was more than \$850,000 worse in 1918 than in 1917. Even if the operating results for the last nine months of 1918 are no worse than those of the last nine months of 1917, the twelve roads will show a deficit of \$215,244 on the year's operation, as compared with a net income of \$656,699 in 1917.

RAILROAD ADMINISTRATION DESIRES HIGHER INTERURBAN RATES

When Director-General McAdoo on May 25 promulgated General Order No. 27, increasing the wages of steam railroad employees, and General Order No. 28, fixing higher passenger rates, effective on June 10, and higher freight rates, effective on June 25, the War Board forwarded copies of these to the interurban lines, together with orders of the Interstate Commerce Commission authorizing new joint rates between administration carriers and others not under federal control.

The War Board also sent a letter explaining its opinion regarding interurban increases. The most striking part of the communication was at the beginning, where the board directed the attention of electric carriers to the following facts:

The United States Railroad Administration desires that electric railways take immediate steps to bring their rates to a parity with the new government rates and to make their new rates effective simultaneously therewith, and it will support your effort with the state public utility commissions to make this possible.

The War Board then went on to say that it had discussed these questions with a number of men prominent in the industry and, as a result of the statistics which it had been gathering, was fully advised as to the straitened conditions in which most of the electric lines find themselves at this time. It remarked that General Order No. 27, increasing the wages of steam railroad employees, had completely unsettled the labor conditions on electric lines and would result in further shrinkage in their net income.

NO CUT-THROAT COMPETITION SHOULD BE STARTED

Continuing, the War Board said:

Increased revenues and financial relief must be provided immediately if the industry is to survive. By adopting the new government rates, electric railways will not only insure an immediate increase in their revenues but by com-

peting with the government-controlled roads on an equal footing they must win such recognition from the Railroad Administration as will result in co-operation, instead of competition, to the mutual advantage of both classes of roads.

To attempt to attract business from steam railroads controlled by the government by maintaining lower rates and in turn seeking relief from the government, both financial and otherwise, is not consistent, and we believe unwise. Each will then have allotted to it that class of business which it is suited to serve with the greatest advantage to the community and to itself, and neither will be required to render any service without adequate compensation.

There is more than enough business for all, and when once a proper understanding and relationship have been established between steam and electric roads, there will no longer be an excuse or an incentive for a road to take on, at a loss, a class of business for the handling of which it is not suited merely to keep it away from another road which is equipped to handle it with profit.

The whole-hearted co-operation of electric lines with the steam roads will give the government a new and broader conception of the functions and value of the former, not only as an indispensable element in the daily life and convenience of the communities which they serve but also as an invaluable aid to the nation in its herculean efforts to meet the present war crisis. When the government has come to a true realization of their real value, the financial needs of electric railways should be provided for as promptly and as fully as the steam road requirements are now being cared for.

For all of these reasons, you are strongly urged to file an application with the proper state and federal authorities for the right to increase your rates, both passenger and freight, to bring them up to the new steam railroad rates or at least by such amount as will retain the present parity between your rates and the steam railroad rates.

The local and state authorities should respond without delay in cases where relief is needed because of changed conditions, as it is clear that the soundness and efficiency of electric railways is intimately connected with a vigorous and successful prosecution of the war.

COMPILATION OF NEW RATES UNDER WAY

With the foregoing letter E. C. Faber, manager of the War Board, also enclosed a draft of a petition adaptable for presentation to any commission. The leading clause of this reads:

In addition to authority already in hand for increasing joint fares applying from points on the line of your petitioner to destinations on the lines of Administration carriers, it is desired also to advance fares between points on the lines of your petitioner proportionate to those established for the carriers under the control of the Administration, namely, to a minimum rate of — cents per mile. Unless this permission is accorded, the fares of the Administration carriers between points competitive with your petitioner will be prejudicially effected by reason of the fares of your petitioner being constructed on a much lower relative basis, the rate per mile for the schedule of charges now effective being—.

The War Board is now sending out to interurbans a data sheet showing the steam railroad passenger rates now in effect between points on the interurban line and the new rates effective on June 10, and also the present interurban rates between the same points. Another column is provided for new interurban rates, from which data will be collated in regard to the movement for higher interurban rates throughout the country.

Interurban electric railways in Ohio, Indiana, Kentucky and Illinois have taken steps to apply for increases in both the passenger and the freight rates. The company in general feel that the passenger rate should be 3 cents a mile and that an addition of 25 per cent should be made to the freight tariffs. On some of the electric lines passenger rates do not average 2 cents a mile, and in no case does the average reach 2½ cents a mile, although some have been allowed to increase their rates since the war began.

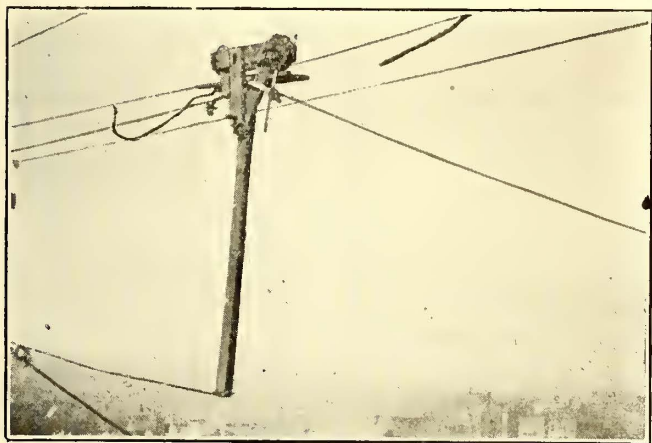
Cutting Loose Insulation from Overhead Lines

An Inexpensive Tool Used With Good Results as an Aerial Insulation Cutter by the Denver Tramway Company

BY O. P. MORSE

Superintendent of Overhead and Bonding

AFTER experiencing considerable trouble on our 13,000-volt high-tension line during wet weather we made some tests and found that loose insulation was responsible for the trouble. At points where loose ends of insulation lay across one or more wires, a small amount of moisture on the insulation carries enough current to cause a short-circuit. Investigation showed that



INSULATION CUTTER IN OPERATION ON THE OVERHEAD LINES OF THE DENVER TRAMWAY

practically one-third of our 27 miles of line had loose insulation of this character, although this wire had been in service only ten years.

As this wire was all installed on 50-ft. poles or higher, the removal of this loose insulation became somewhat of a problem. Otherwise it would have been necessary to renew the wire, a very expensive procedure at this time.

After several unsuccessful efforts to remove the loose ends by burning with a blow torch which was made to travel underneath the wires we made up the small tool shown in the accompanying illustration. This has proved very satisfactory.

The insulation cutters consist of two old hacksaw blades each 1 in. wide by 3 in. long, sharpened and fastened to a wooden block. These blades were made to form a V with the outer ends $\frac{3}{4}$ in. apart. The block to which they are fastened has a rounded groove for guiding the insulation into the cutter. Two wooden wheels serve to support this and provide the means for running it along the wire. This is done by linemen on each pole pulling it in either direction by means of ropes fastened to the end of the tool. At some points loose insulation was found which kept very close to the wire, being loose at the center and supported at the ends. To cut this insulation loose the cutter was provided with a vertical arm $3\frac{1}{2}$ ft. long. A rope was attached to the bottom of this arm and, by pulling, the tool was tipped slightly so as to raise the cutter up against the wire and cut the insulation loose.

In regular operation it was found that six wires could

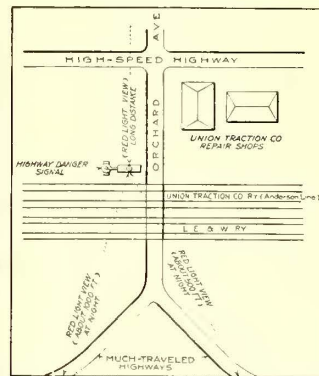
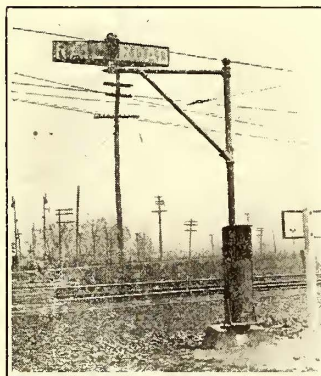
be cleaned off between poles in twenty minutes, and a crew of two linemen and a foreman were able to clean up all our lines in twelve days. We now intend to have the line overhauled once about every three months. This work should not take more than one or two days.

The cost of this tool was only \$5 and it will last indefinitely.

Winking Highway Signal Protects Dangerous Crossing on Union Traction Company's Tracks

THE Union Traction Company of Indiana has recently made a trial installation of a flashing highway danger signal. This is located just outside the city of Indianapolis at the point where Orchard Avenue crosses the Anderson line. This crossing is particularly dangerous to highway traffic due to the presence of a fork in the roads at that point, making it impossible for automobilists or other drivers to see ahead for any great distance. The very considerable travel on this highway makes it necessary to have an effective signal at this point.

Accompanying illustrations show the layout of roads and tracks at this point and a view of the signal as installed. The flashing signal used is made by the A G A Railway Light & Signal Company, Elizabeth, N. J. In this signal the light is produced from acetylene and the operating mechanism automatically governs the flow of gas in such a way as to make it intermittent. A small pilot light burning continuously ignites this efflux of gas and produces the flash or winking effect. This arrangement is economical of gas. The distinctive characteristic of this light is that it suddenly bursts out and is as suddenly eclipsed. The automatic extinguishing and relighting of the main flame insures attention that would not be possible with a steady burning light or one that grows and fades. The light flashes



LOCATION OF SIGNAL AT ORCHARD AVENUE CROSSING NEAR INDIANAPOLIS, IND., AND VIEW OF SIGNAL INSTALLED ON LINE OF THE UNION TRACTION COMPANY OF INDIANA

through a red lens in the center of the lamp and at the same time illuminates the lettering on the lamp box as shown in the illustration.

The signal as installed is supported by a wrought-iron pipe mast through which the gas pipe is conducted to the burner. The gas container is a 12-in. x 36-in. tank mounted at the base of the structure. It has capacity for sufficient acetylene gas to operate the signal for 300 days without recharging. While the signal as installed

on the lines of the Union Traction Company flashes constantly, it can be connected with the track circuit so that the danger signal will be given only as a train approaches the crossing.

Skidding Test on Cast-Steel Wheels

BY HOWARD W. QUINN

Acting Superintendent of Car Repairs, Bay State Railway, Boston, Mass.

SOMETIME ago the writer conducted a skidding test on Davis (American Steel Foundries) one-wear, cast-steel, manganese-tread wheels. It was desired to determine to what extent a skid of very unusual length would flatten these wheels and to that end a stretch of level, tangent track 110 ft. in length was prepared for the test and was divided into three parts parts, as indicated in the accompanying sketch.

The first section, 30 ft. in length, had both rails greased with heavy oil; in the next 30 ft. section had both rails greased and sanded, and the remaining 50 ft. section had both rails covered with dry sand. The test was made with a 30-ton, double-truck Brill "Easy Access" car with 33-in. wheels and consisted in starting the car and attaining an approximate speed of 35 m.p.h. at the moment of entering upon the 30-ft. greased section of track. An emergency application of the

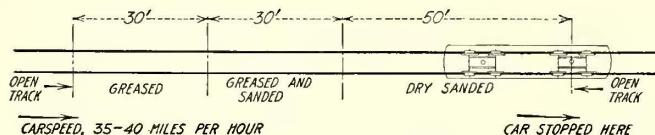


DIAGRAM OF TRACK USED IN WHEEL-SKIDDING TEST ON BAY STATE STREET RAILWAY

air brakes readily locked all eight wheels and they were permitted to skid until the car came to rest in the position indicated in the accompanying sketch, with the forward pair of wheels just clear of the farther end of the 50 ft. dry-sanded section. It will be observed that the forward pair of wheels skidded the full 80 ft. while the rear pair skidded some 25 ft. less or 55 ft. under the most severe conditions obtainable. Careful watch was kept by observers on the street to determine whether or not the wheels revolved, and it developed that the wheels remained fixed thus constraining the entire abrasive action to the eight points of contact with the rails, which points were prick-punched for identification before moving the car. A careful, visual examination of wheel treads disclosed a brightly polished elliptical spot of about $\frac{3}{8}$ -in. major axis and $\frac{1}{4}$ -in. minor axis, which could not be considered objectionable or render the wheels unsuitable for additional service. That the manganese treads are somewhat ductile was evidenced by the slight flowing of the steel to the trailing side of the contact ellipse where it was deposited in a very thin ridge of about $\frac{1}{8}$ in. in height. After the test was completed the test car was again put back on the line, and the wheels rendered satisfactory daily service for fifteen months at which time they were removed as worn out. An accurate record of the additional mileage made was not kept, so it is impossible to state the exact amount of this, but it was high, and no evil results were experienced from the test.

Estimated Savings in Skip Stops

Fuel Administrators Throughout the Country Are Seeking Co-operation of Public Service Commissions and Utility Companies to Conserve Fuel

IN AN article on war conservation of power and light in this week's issue of the *Electrical World*, Charles E. Stuart, chief of power and light division, United States Fuel Administration, discusses some of the economies of the skip stop which he refers to as one of the most promising methods by which economy in the use of fuel is being obtained. Continuing he says:

"With the present practice of having cars stop on signal at any street corner, there are usually from twelve to fourteen stopping points per mile. With the skip-stop system, properly applied, these are reduced to not more than eight per mile in the business districts, six per mile in residence districts and four per mile in the open country. With the number of stopping points decreased in this way, a saving of from 10 to 15 per cent can ordinarily be effected in the power and hence in the fuel required, while at the same time the average speed of the cars is increased, without any increase in the maximum speed, and the service thus improved. Since this measure secures economy in fuel not only without handicapping the service, but with an actual improvement, it is obviously an extremely desirable type of conservation measure.

"Our plan is to secure the adoption of the system by voluntary co-operation between the railway companies and the various municipal authorities or state commissions and to bring about this co-operation through the federal fuel administrators for the several states. These administrators are all men of influence in their communities, and so far we have found in every case that a request from the state administrator to the proper authorities was all that was necessary to secure permission for the introduction of the system as a conservation measure during the war. With permission thus provided for, the railway companies have all been glad to adopt the plan.

"Through our efforts, through the independent efforts of various local administrators or through the efforts of certain railway companies themselves, the skip-stop system has been adopted, or is about to be adopted, as a coal conservation measure in Detroit, Washington, Baltimore, Brooklyn, Cincinnati, Columbus, Dayton, Toledo, Indianapolis, Evanston and South Bend, Ind., Newark and the other cities of New Jersey, New Haven and all the other cities of Connecticut, and in Oakland, Berkeley and Alameda, Cal.

"The Connecticut Company has reported a saving in fuel of 10 per cent for its New Haven lines, and reports indicate saving in the other places at rates varying from 3600 tons per year in Columbus to 21,000 tons per year in Detroit.

"Various schemes for reducing car heating have been contemplated, but as yet no definite plans have been formulated."

The Fuel Administration is also devoting attention to the saving of power through the elimination of uneconomical isolated plants, better utilization of power and light in factories, development of water power and interconnection of power systems.

LETTERS TO THE EDITORS

Economy of Checking Devices for Motormen

ECONOMY ELECTRIC DEVICES COMPANY

CHICAGO, ILL., June 4, 1918.

To the Editors:

I have read the leading editorial in the June 1 issue with great interest, because it is a straight-from-the-shoulder statement of the situation. You make the point very forcibly that power is being wasted, and every manager of the numerous roads using energy-checking devices has, in substance, voiced your editorial. It is safe to say that almost without exception every such road will testify that irrespective of schedule refinements, the checking of the motormen through the use of a checking instrument will bring about at once substantial savings and will hold these savings.

As a rule it is not good form for the manufacturer to criticise his possible customers, but I have found the electric railways ready to admit just what is stated in your article and conclude their admissions with some qualifying statement, as, for example: "We know we could reduce our energy consumption 10 per cent, but the labor situation is so delicate at this time that checking devices could not be introduced on our property without a disturbance."

It has been our experience that no class of motormen is willfully wasteful, but unless the men are operating under some checking system they have no knowledge of their power efficiency so long as they keep from accidents and handle their cars on time. The trolley wire is there with an unlimited supply of power, so far as the handling of the controller and brakes on any one car is concerned. It is true men are taught the correct handling of controller and brakes when they are broken into service, but without some stimulus any individual will settle down to the easiest way of doing his duties. Even if the company kept no records of the readings, a device by which the men could check their own performance would undoubtedly be so used and would prove an inspiration to better performance. Actually the acceptance of the Economy meter by the car crews as a fair measure of their performance has been thoroughly discussed in labor conferences, and the checking of men in accordance with their power consumption has been approved by both parties to the conferences.

You mention that possibly one reason for the slowness of the electric railway industry in universally adopting car-checking devices is the lack of funds, and your statement is true that this cannot be finally considered as a real reason because the instruments can (and do) earn their cost before they are fully paid for. We have several examples of properties which have installed meters at a cost of from \$50 to \$60 per car. The annual carrying and operating charges have been around \$20 a car, and the actual power saving has been around \$100 per car per year—and this at the pre-war coal prices.

It is true that the introduction of a checking device calls for a new department or a sub-department; but if that department can support itself, pay off its capital charges and show a 25 per cent profit on the investment for the first year, it certainly should be worth prompt

introduction. But the railroads want to be shown and in several instances we have equipped lines or parts of lines by carrying out tests or permitted the roads to carry on their own tests, with our instruments. And in no case has this failed to convince the management that savings in substantial amounts were easily possible. Because of these conditions we have offered a leased-payment plan by which, in a period of years at a fixed rental per day, the meter would become the property of the road.

L. E. GOULD, President.

What the Rail Rate Raise Means

MILWAUKEE ELECTRIC RAILWAY & LIGHT COMPANY,

MILWAUKEE, WIS., MAY 28, 1918.

To the Editors:

The \$880,000,000 a year increase in railroad freight and passenger rates, ordered by Director-General McAdoo, comes in season to save several hundred thousand railroad employees from being too grossly underpaid in a time of high prices. They will get \$300,000,000 a year of the \$880,000,000, and most of this \$300,000,000 will go to employees who for years before the war were grossly underpaid.

The rate increase comes too late to enable the railroads to increase their equipment sufficiently to meet the traffic needs of the nation at war. The other \$58,000,000 a year will be used in this way, as rapidly as possible, but it will buy less than half as many cars, engines, etc., at present prices, as the same sum would have bought any time prior to 1915. The railroads have been eager to buy more cars and more engines and to increase their mileage and enlarge their terminals for years past, but they have been denied rates adequate to pay for these betterments.

The Interstate Commerce Commission and the state railroad and public service commissions are now seen to have failed of their duty in this respect. State and city attorneys, eager to "save the people" by suing to prevent badly-needed rate increases, have contributed to the failure of the Interstate and state rate commissions to provide for the maintenance and due expansion of the country's commercial public highways. State and city chambers of commerce and other business organizations, each seeking its own local or sectional advantage, have shortsightedly and in the final result disastrously thrown their influence against the granting of rates needed to enable the railroads, as a whole, to pay good wages, give ample good service, make necessary extensions of plant, and yield an assured fair return on investment.

The railroad companies cannot escape a large share of responsibility for the railroad system's progressive decline in total efficiency during the past twenty years. Their controllers while still in private management could have got what they needed, with public approval, had they merchandised their service, just as all other merchants do, by intelligently and persistently advertising its cost and value.

Operators, rate regulators, public attorneys, political shysters, honest but uninformed reformers and provincially selfish business organizations collectively brought the railroads to a point where the federal government had no alternative but to take them over and operate

them with the backing of public credit, in order to make them, so far as possible, satisfy the requirements of the nation at war.

It appears from the newspaper reports that some of the state commissions are "stunned" by this invasion of their field by the federal government. The effect of Director-General McAdoo's order is to take control of railroad rates away from the state commissions for as long as the federal government shall operate the roads. It may be added that the state commissions are likely to be "stunned" a second time, in the same way, if they do not with necessary promptness grant the rate relief essential to maintain the credit and the efficiency of the street railways, gas and electric services and other public utilities still under their control. The same factors that made the steam railroads incompetent to meet the public's requirements during peace and utterly incapable of satisfying the nation's war demands have during the same period been operating to strangle the municipal public utilities of the country.

A shortage of gas and electric energy and a crippling of electric railway facilities for vastly increased requirements of war industries is in sight. It may easily become as great a menace to the nation's war industrial efficiency as the breakdown of the steam railroads shortly before the government took them over. And it may be expected to produce the same result, if the state and city authorities which still have power to regulate utility revenues fail to grant in time the increased rates needed to keep these utilities efficient. The United States is going to win the war. It is going to make and keep the country's industrial power and its urban transport equipment competent to do its full share in winning the war. If the state and city authorities which now control these utilities fail to assure their competency, it goes without saying that when the situation becomes sufficiently acute to warrant such action, the federal government will find a way to assure it.

The hasty assumption that increased railroad and public utility rates will be a "burden on the people" is unwarranted. The people as a whole will pay these increased rates with increased wages and increased incomes. The dollar of 1915 is to-day worth only 50 cents across the counters of merchants of all kinds. The absurdity and the rank injustice of requiring investors in and employees of regulated industries to accept as their wage the same number of the 50-cent dollars of 1918 that they got of the 100-cent dollars of 1915, when everybody else is getting a doubled wage or near it, must be admitted by all who have any desire whatever to be fair to the utilities.

For the period of the war at least, radical newspaper manufacturers, radical politicians and any others who have hitherto prospered by "hammering the railroads and public utilities" will have to find new bogies or fall silent. The decree of a radical government raising railroad rates \$880,000,000 a year and railroad wages \$300,000,000 a year, as a plain matter of justice and national health, pretty effectively disposes of this particular bogey. Director-General McAdoo, being a first-class salesman, has explained his order in a way to make it acceptable to the public. The railroad operators could have done this years ago, had they been salesmen.

FRANK PUTNAM.

AMERICAN ASSOCIATION NEWS

"Do It With a Purpose"

This Was Mr. Brush's Message as He Awarded Charter Membership Cup to Providence Section

THE recently formed Rhode Island Company section met at Providence on June 3 to accept the custody of the company section charter membership cup presented to the association by the ELECTRIC RAILWAY JOURNAL and to listen to addresses by M. C. Brush, president Boston Elevated Railway, and W. C. Slade, superintendent of power and lines of the local company. Mr. Brush stirred his audience powerfully by his appeal for patriotic co-operation with the government in the faithful performance of transportation duties. Mr. Slade gave an illustrated lecture, in non-technical language, showing how the automatic substation is playing an important part in power distribution economy and how it is actually being applied on the Rhode Island Company's lines. In addition to the longer addresses, a message to the section from James H. McGraw was read, and Martin Schreiber, Newark, N. J., Charles C. Peirce, Boston, Mass., and H. H. Norris, New York City, spoke briefly on the week of the company sections.

Disclaiming any desire to "preach" to his audience Mr. Brush took occasion to point out a few essentials of success in railway work, particularly for the benefit of the younger members of the section. He illustrated his points with interesting personal reminiscences. Success, he said, is due largely to the friendships which one forms. These should be capitalized but not commercialized. Most of the friction which occurs in the work of any organization is due to lack of acquaintance on the part of responsible officials or their representatives. The company section affords excellent opportunity to promote friendship.

Above all, Mr. Brush said, there must be a purpose in everything that is done. If a man wants to read "Nick Carter" he is justified in doing so if he believes that he will thus accomplish some definite aim. On the other hand, it is wrong to do anything just to "pass away the time." In bringing the matter closer home he said that if those present at the meeting did nothing on the next day in a manner different from that which characterized their previous work the meeting for them would have been a failure.

Mr. McGraw's message to the section was as follows:

You have done a wise and patriotic thing in organizing this company section. It ought to be a potent factor in making the Rhode Island Company stronger and more useful to the important communities which it serves. We look to New England to furnish many of the munitions of war. In this work electric railway transportation is an essential element. My plea is that you aid your company and thus your country by giving this community even better than first-class service.

You have made a splendid start, but it is only a start. The section will not run itself. Teamwork is urgently necessary from the start. For a while the starting enthusiasm will carry you along. Then will come a period of reaction. This will be the time when you must all put your shoulders to the wheel. After this the company section will be an integral part of your whole organization and it will function naturally and with less effort. Wise planning is necessary now, and especially in tiding you over your first summer. With your enormous charter membership you ought to accomplish great things from the very start.

News of the Electric Railways

TRAFFIC AND TRANSPORTATION

FINANCIAL AND CORPORATE • PERSONAL MENTION • CONSTRUCTION NEWS

Finances, Wages, Fares

All Three Enter as Considerations Affecting the Immediate Future of the International Railway

An investigation will be made into the financial affairs of the International Railway, Buffalo, N. Y., by the City Council to determine whether or not the company should be granted permission to increase its rate of fare within the city from 5 cents to 6 cents. The City Council asked the Public Service Commission for the Second District to make the inquiry but the commission has refused to take any official action in the matter, apparently holding that owing to franchise restrictions the fare question is one to be settled between the city and the railway.

Urgent pleas are being made to the Council by Edward G. Connette, president of the railway; Thomas Penney, vice-president and general counsel; E. J. Dickson, vice-president, and Henry W. Killeen, of Penney, Killeen & Nye, of counsel for the company, for immediate action because the employees of the company are threatening to strike unless their pay is raised immediately.

SIX-CENT FARE ESSENTIAL

President Connette has told representatives of the motormen, conductors and shopmen that he is willing to grant a substantial wage increase, but owing to the financial condition of the company, an advance in wages cannot be granted until after the 6-cent fare application of the company has been approved by the municipal authorities. The company in a signed statement to the City Council sets forth that the entire revenue obtained from the additional 1 cent collected from passengers will be used in giving employees a substantial wage increase and for improvements and additions to the company's tracks, rolling stock and other equipment. President Connette also promised that none of this additional revenue will be used for paying dividends. It is estimated that the additional 1 cent collected from passengers will increase the company's revenue approximately \$1,200,000 a year.

After a series of conferences and public hearings the Council made a report to the public which said that "the transportation service supplied by the International Railway is now and has been inadequate for several years and has been at times intolerable. Reports filed with the New York State Public Service Commission show that the company derives large revenues from the operation of its lines in Buffalo and that these revenues are quite sufficient to enable the company to pay

fair and reasonable wages to its employees. The wage paid to the employees by the company is solely a matter between the company and its employees and the company is in error in seeking to involve the Council in any wage controversy."

An opinion to the City Council by the Corporation Counsel says that the Council has no power to make an agreement with the company providing for an increase in the prevailing rate of fare without authority from the New York State Legislature. He holds that the Milburn agreement between the city and the International Railway providing for a 5-cent fare with free transfers cannot be terminated without legislative authority.

In answering this opinion of the Corporation Counsel, Henry W. Killeen, of counsel for the company, says that it is imperative that the 6-cent fare be granted as an emergency measure by the Council. The International Railway can then have the city's decision ratified by the Legislature.

Finds Franchise Burdens Onerous

The application of the Puget Sound Traction, Light & Power Company to the City Council of Seattle, Wash., for relief from its franchise obligations during the period of the war, and a reasonable length of time thereafter, has been referred to a committee consisting of Councilmen Erickson and Lane, and Thomas F. Murphine, superintendent of public utilities. The action was taken after A. W. Leonard, president of the company, appeared before the joint committee on franchise and judiciary, explaining the necessity of some action being taken to enable the company to improve its service. Mayor Hanson met with the committee and asked Mr. Leonard numerous questions dealing with the holdings and earnings of the company. Mayor Hanson also asked Mr. Leonard if the franchise obligations were suspended by the city, would better service be furnished by the company. To this Mr. Leonard said he would not want to make any definite promises unless he knew that he could back them up.

Councilman Thomson stated that he would write Mr. Leonard within a week, giving his ideas regarding the proposition of the city taking over the company's lines.

The day previous to the hearing before the joint committee on franchises and judiciary, Mayor Hanson addressed a communication to Mr. Leonard, making formal demand that the company comply with its franchise provisions "without further delay or equivocation."

Chicago Essentials Fixed

Officers of Surface and Elevated Lines to Report Back Soon on Acceptability of Terms of New Grants

New ordinance developments progressed another step in Chicago, Ill., during the two weeks ended June 1, when the tentative draft of the franchise was corrected and approved by the sub-committee of the City Council. The essential features have now been determined and representatives of the surface and elevated roads agreed to report back within a short time as to their acceptability.

RENEWALS A PROBLEM

There was considerable discussion of the renewals question, the attorney for the committee contending that property should be maintained at 100 per cent, while the companies argued that it should be kept up to a standard of good operating condition. Mr. Busby referred to the Surface Lines renewal fund, which now aggregates \$8,500,000, and is growing at the rate of \$1,500,000 each year. It was finally agreed that the requirement for renewals be fixed at 8 per cent, and if more money is needed for actual renewals this should be provided by the company if so ordered by the local commission. There was considerable debate over the protection for the 1 per cent of gross earnings, which is to be allowed the company if earned over and above the 6 per cent guaranteed return on capital account. The sub-committee finally decided that the 1 per cent would be cumulative if an excess were earned in any succeeding year. It was also decided that capital investment would be limited so as to give protection to this 1 per cent allowance.

AMORTIZATION CONSIDERED

There was considerable discussion of an amortization fund and both sides agreed the minimum should not be set too high, as this would mean that the present generation would pay for the property and that the succeeding generation get all the benefits of cheaper service. The question of service in and out of the city, about which there has been much dispute, will not be settled until the bills are drafted for the Legislature next fall. The matter of financing the new corporation was also discussed at length.

The local newspapers are favoring speed in the settlement of long pending traction controversies and have urged the committee not to quibble over small points, because if the matter is not settled by the City Council this summer, it must go over for at least two years.

Boston Plan Approved

Stockholders Vote for Public Operation and Authorize New Issue of Preferred Stock

The stockholders of the Boston (Mass.) Elevated Railway on June 3 voted to accept the act of the Legislature providing for public operation and to issue \$3,000,000 of 7 per cent State-guaranteed stock to carry out the purposes of the law.

At the meeting M. C. Brush, president of the company, said that the flotation of the stock issue was absolutely necessary if the act was to become effective and that the notices would be sent out immediately requesting subscriptions. Mr. Brush was quoted as follows:

"In my opinion, this legislation is the most constructive ever enacted in the United States for a public service. The electric railways of this country are, generally, in very bad financial condition. Under this plan the stockholders are assured that obsolescence of the road and equipment will be taken care of, that the affairs will be well managed and the service kept up to reasonable requirements, at least, and that the State will pay your dividends if the road doesn't."

He then reviewed the difficulties of securing the passage of the bill, saying that he had devoted a large part of his energies to it for two years and that the directors also had worked untiringly. About 150 men, as he estimated it, had devoted a considerable part of their time to the study of the electric railway problem and finally had worked out what was believed to be a sound and workable plan. Mr. Brush gave it as his opinion that once the plan is found to work as well as is expected, it will never be given up by the State. Under no conditions can it be thrown over before the end of ten years, and then only by serving two years' advance notice.

The terms under which the road will be operated have been reviewed previously at length in the *ELECTRIC RAILWAY JOURNAL*.

Atlantic City Strike Settled

The strike of the motormen and conductors in the employ of the Atlantic City & Shore Railroad, Atlantic City, N. J., has been settled. The men have been restored to their positions and are receiving an increase in wage. The settlement was brought about at a conference between Clarence L. Cole, receiver for the company, and representatives of the Amalgamated Association. It was agreed to settle future deadlocks by arbitration. The men agree to work ten hours a day and are to be treated by the company as individuals and not as a unit of the union. The union is to conduct its affairs as it will, and the company reserves the same right.

Previous to the strike the employees were receiving 25 cents an hour the first year on the Atlantic City line; 27 cents the second year and 29 cents

for three years or longer. Those on the Ocean City line were being paid 27, 29 and 31 cents. The former will now receive 31, 33 and 35 cents an hour while those on the Ocean City division will be paid 33, 35 and 37 cents an hour. All shop employees and those engaged in various other lines of work benefit by the 6-cent advance.

The strikers demanded that six men be discharged who remained at their posts when the strike was declared, but finally consented to have them remain because they were old hands. The company will now have to pay out annually to the men in its employ \$14,000 more in wages.

Franchise Negotiations Fail

The City Council of Norfolk, Va., has voted against the combination of the electric lighting and power and traction franchises, in the new franchise proposed by the Virginia Railway & Power Company. This will probably put an end to all negotiations looking to a rerouting plan for Norfolk under a new franchise. W. H. Venable, counsel for the company, stated during the discussion of the proposition that his company could not consider a franchise which would not include light and power as well as traction. Later on Mr. Venable stated the company would take no further steps. He declared that it was impossible to look upon the two branches of the company's business as other than a whole because bonds had been issued covering all the activities of the company and the trustees representing the holders of the bonds would not consent to a separation of the businesses.

Wage Advance in Philadelphia

The management of the Philadelphia (Pa.) Rapid Transit Company on May 28 expressed its appreciation of the loyalty of its employees who stood firmly against the attempt of outside influence to disrupt the service, and in anticipation of the increased fare for which it has made application, announced that it had decided to advance the wages of all employees, paid on an hourly basis, 2 cents an hour. The wages of men, paid on a monthly basis and receiving less than \$200 a month, will be correspondingly advanced.

The advance will be made effective as of May 16, 1918. The company will endeavor to secure the increased fare at the earliest possible date and upon receiving the same will at once make the further increase of 3 cents an hour in keeping with its original promise.

On May 29 two weeks had elapsed since the attempted walk out, to which reference was made in the *ELECTRIC RAILWAY JOURNAL* of May 25, page 1023. In fairness to the men who have operated the cars, May 29 at 8 p. m. was fixed as the limit of time during which the few men who at that time were still out could return to duty without the loss of their seniority rights.

St. Louis Wages Adjusted

Men Get Advance of Ten Cents an Hour, With Guaranteed Minimum of \$70 for Extras

The agreement reached between the officials of the United Railways, St. Louis, Mo., and a committee representing the local union of the Amalgamated Association of Street & Electric Railway Employees of America has been ratified by the men in the employ of the company by vote. The agreement contains forty-eight sections.

AGREEMENT FOR THREE YEARS

The company will increase the pay 10 cents an hour. This is equivalent to a flat increase of 35 per cent. The agreement is to continue in force for three years from June 1, 1918, but the rates of wages and the hours may be readjusted on June 1 of each year the agreement is in force if either the company or the association demands a rearrangement on or before April 1 of such year. If the company and the association are unable to agree within thirty days upon the hours and rates of wages to be paid for the ensuing year the matter is to be submitted to arbitration. All extra men are to be guaranteed \$70 a month provided they report three times every day. For each miss or other absence from duty in a thirty-day month, one-thirtieth of \$70 is to be deducted.

The wages of motormen and conductors in the employ of the company effective June 1 will be as follows:

DETAIL OF NEW RATES

Beginning and during the first year, 36 cents an hour.
Beginning and during the second year, 37 cents an hour.
Beginning and during the third year, 38 cents an hour.
Beginning and during the fourth year, 39 cents an hour.
Beginning and during the fifth year, 39½ cents an hour.
Beginning and during the sixth year, 40 cents an hour.
Beginning and during the seventh year, 40½ cents an hour.
Beginning and during the eighth year, 41 cents an hour.
Beginning and during the ninth year, 41½ cents an hour.
After the end of the ninth year of continuous service, 42 cents an hour.
This wage scale is to apply to the wages of certain employees, between March 1 and June 1, 1918, as set out in section 1 of the terms of the agreement.

INCREASE IN OTHER DEPARTMENTS

United Railways officials estimate that the combined increase to carmen, mechanical, reconstruction and other employees will cost the company \$1,400,000 yearly. President McCulloch's order increasing the pay of shop and roadbed men concludes as follows:

"The company is making this increase by reason of the decision of the Public Service Commission of Missouri authorizing the company to increase its rate of fare on June 1."

Strikes in New York State

The trainmen in the employ of the United Traction Company in Albany, Troy, Watervliet, Green Island, Cohoes and Rensselaer in New York went on strike on June 3, but returned to work the following morning.

The settlement agreement was reached after a ten-hour conference, which terminated shortly after 4 a.m. Participants in this included, besides representatives of the company and the men, Walter A. McClatchy, federal housing agent for the Watervliet arsenal, and Mayor James R. Watt.

The trainmen, who struck for an increase in wages of 9 cents an hour, were granted an increase of 6½ cents an hour. Other employees covered in the agreement are to receive a 20 per cent increase. The question of additional pay, not to exceed 40 cents an hour, will be settled by the War Labor Board.

The employees of the Schenectady Railway went on strike the previous morning, but in this case the negotiations for a settlement were not so successful. Up to June 4 the men in that city were still out. They also demanded a 9-cent wage increase. The company there offered the men 4 cents additional. Efforts to apply to Schenectady the same terms of settlement as agreed upon for Albany failed.

D. U. R. War Attitude Stated

Frank W. Brooks, president of Detroit (Mich.) United Railway, has issued a statement on the proposal of the municipal authorities for federal control of the company's lines. Decision to ask the national government to take over the system followed an intimation from the company that it might be necessary to ask for an increased rate of fare. Mr. Brooks said:

"In common with other business undertakings, we are trying to adjust ourselves to the changing conditions with respect to both the labor shortage and the growing costs of everything and to meet the requirements of the munition factories and other war industry plants. We have already extended tracks to the Dodge Brothers ordnance plant and are now making extensions to the Ford shipbuilding plant.

"Of course, if the federal government in its wisdom wants to take over our 900 miles of railways, we will very willingly lend every aid we can. In fact, we will be glad to have the government take everything we own, if it will help win the war."

Reading Strike Settled

All differences between the striking trainmen of the Reading Transit & Light Company, Reading, Pa., and the company have been adjusted, and the cars resumed operation on May 28. The strike was settled after a series of conferences between the company and representatives of the men brought about by William Young, chief mediator of the State Department of Labor.

Under the adjustment eight dismissed employes have been reinstated and all the men now in the service of the company have been granted an increase in wages to 34 cents an hour. Any man employed after June 1 will receive 32 cents an hour for the first year, 33 cents an hour for the second year and 34 cents an hour for the third year. An advance of another cent will go into effect on Jan. 1, 1919.

The company refused to recognize the trolley men's union, but expressed its willingness to receive committees of its employees at any time to adjust differences, with the explicit understanding that non-union employees shall be represented on such committees by at least three members. The company will continue to employ men regardless of whether they are members of the union and there is to be no attempt at interference with the company's enforcement of discipline.

The men 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.

Strike in Northern New Jersey

On the morning of June 6 the trainmen in the employ of the Public Service Railway on its lines in Northern New Jersey went on strike. The territory which was affected included Newark, Jersey City, Hoboken, Paterson, Passaic and other places.

The walkout was due to the company's refusal to grant the conductors and motormen a flat rate of 45 cents an hour and 65 cents an hour overtime. The company offered a rate of 30 to 40 cents an hour—30 cents an hour to men who had been in the employ of the company six months; 35 cents an hour to men employed from six months to five years, and 40 cents an hour to those in the service more than five years.

Just outside of Newark are three great shipyards that are working in day and night shifts to speed up the shipbuilding program. Many other war industries also are in the territory affected. The company did its best to restore service promptly on the most important lines. In some cases volunteer workers from the shipyards operated cars to transport their fellow workmen.

Thomas N. McCarter, president of the railway, in a statement on June 6 charged that the strikers had been guilty of breach of faith. He recited the negotiations between the company and employees, and said that when the offer of the company was put to a committee of workers, that committee, after considering the proposition in private, agreed to accept the company's offer. Without word or warning, he said, the men met and repudiated the action of their own committee and walked out.

The company has had a considerable number of women in training for use in platform work, but they were not used to replace the men who went out.

Scranton Arbitration Under Way

After a week's idleness the striking trainmen of the Scranton (Pa.) Railway returned to work on June 2. The men decided to place their case in the hands of the National War Labor Board for an early adjustment. This decision was reached at a meeting held on June 1, after a telegram had been received from former President Taft and Attorney Frank P. Walsh, of the National War Board, declaring that by remaining on strike the men were violating the agreement between labor and capital upon which the War Board was founded. An offer to arbitrate the controversy was made with the statement that the award would be effective as of the date work was resumed.

Messrs. Taft and Walsh, chairmen of the board, met on Sunday, June 2, in Scranton. This meeting was attended by members of the executive committee of the union and officials of the railway. At this conference the attorney for the men sprung a surprise by requesting an increase of 40 per cent for men receiving 30 cents an hour or more and 50 per cent for men receiving a wage less than 30 cents an hour. The original demands were for a flat rate of 40 cents an hour for all conductors and motormen, regardless of how long they had worked for the company.

Mr. Walsh would not venture to predict how long it would take to settle the case. An expert examiner has been appointed to handle the details in Scranton. The company attorneys and representatives of the men will present the case to him. He will assemble the data and present them to the chairmen for final adjudication.

News Notes

Employees Accept Wage Increase.—The employees of the Morris County Traction Company, Morristown, N. J., have accepted a flat increase of 2½ cents an hour offered by the company, with a promise of a further increase on Sept. 1.

Connecticut Men Accept Compromise.—By a referendum vote the trainmen have accepted the compromise offered by the Connecticut Company, New Haven, Conn., which includes compensation ranging from 34 cents to 40 cents an hour. The time schedules will have to be adjusted to local conditions.

Wilmington Men Strike.—Employees of the Wilmington & Philadelphia Traction Company, Wilmington, Del., went on strike on May 31, but returned the following day on the company's promise to increase their wages 8 cents an hour at once, with a further increase of 2 cents if the company receives permission to increase its fares to 7 cents.

Increase in Pay for Camden Men.—The motormen and conductors on the South Jersey division of the Public Service Railway at Camden, N. J., have received an increase in pay of 2 cents an hour. The new rate went into effect on June 1. The beginners now receive from 28 cents to 30 cents an hour and the regular crews from 34 cents to 36 cents.

Wants Franchise Burdens Lifted.—The City Council of Seattle, Wash., recently received a communication from the Seattle & Rainier Valley Railway requesting an early conference with the Council regarding relief from franchise obligations, which the company declares cannot be much longer carried in the face of advancing prices of labor and materials. The matter has been referred to the committee on franchise and city utilities.

Course in Radio Communication.—On account of the urgent need of the government for men qualified to render special technical service in the Signal Corps, the University of Illinois will offer a course in radio communication during the summer session of 1918. This course is for men who wish to prepare themselves for research and development work or for field service in the Signal Corps of the Army. Instruction will begin on June 17, and will continue until Aug. 9.

Municipal Railway Bows to Men's Demands.—The threatened strike of the employees of the Brantford (Ont.) Municipal Railway was averted on May 30, when the men accepted the new rates of pay offered by the Railway Commission which operates the line. The old rates were 23, 25 and 26 cents an hour, for first, second and third year men respectively. The new rates will be 29, 31 and 32 cents an hour. A deficit is now very probable unless fares are raised.

New Offices for International Railway.—The offices of the International Railway, Buffalo, N. Y., have been moved from Ellicott Square to the Littell Building, corner of Huron and Franklin Streets. The railway company occupies the third floor and part of the second, and has about 50 per cent more office space than in the other building. This building was erected by H. H. Littell, a pioneer in the electric railway business. It has been remodeled for the accommodation of the new tenants.

New York Subway Labor Situation Met.—The threatened strike of laborers on subway construction contracts has been averted for the present by an agreement between the Public Service Commission for the First District and the authorities of New York City. Comptroller Craig has offered to finance the contractors in order that they may be able to meet the demands for higher wages made by the laborers. The adjustment between the city and the contractors will be arranged in the future.

Trenton Men Insist on Demands.—The trainmen in the employ of the Trenton & Mercer County Traction Corpora-

tion, Trenton, N. J., threaten to walk out after June 10 if the company does not grant their demands for an increase in wage. The traction corporation recently gave the employees an increase of 2 cents an hour, but the men say that the raise is not sufficient for them to meet the advancing cost of living. A meeting was held on June 3 following a conference with the traction officials and it was decided to take a vote on the question on June 10.

Employees Favor Fare Increase.—The motormen and conductors in the employ of the Pittsburgh (Pa.) Railways through the officers of Division No. 85 of their union, have made public a resolution commending the receivers in their effort to place the Pittsburgh Railways on a paying basis. The men say they feel that as every trade has received a substantial increase of wages within the last two years, there should be no hesitancy on the part of other workers to pay a cent or two extra for electric railway service, the cheapest commodity they can procure in the city.

Wage Increase in Birmingham.—A voluntary increase of 3 cents an hour has been made in the wages of its motormen and conductors by the Birmingham Railway Light & Power Company, Birmingham, Ala. This increase, which is the second since the war opened, brings the pay of the men to a minimum of 26 cents an hour, and a maximum of 33 cents, while the original contract between the company and the conductors and motormen called for a sliding wage scale ranging from 21 cents for the new employees to 28 cents an hour for those who have been in the service of the company for a number of years.

Commission Has Power Despite Franchises.—Attorney-General Brown of Pennsylvania has advised the Public Service Commission of that State that in his opinion the Legislature has given the commission power to regulate and allow increases in rates, notwithstanding the fact that municipal ordinances, granting franchises, may contain provisions fixing the charges that can be made. In concluding his communication to the commission Mr. Brown said: "Specifically answering your inquiry, I have now to advise you that the Public Service Commission of the Commonwealth of Pennsylvania does have the power legally to authorize a street railway to increase a rate of fare, notwithstanding the fact that that rate was specified by local authorities as a condition upon which they gave their consent to the company to construct its lines within the municipal limits."

Aurora-Elgin Wage Differences Settled.—Through the efforts of business men of the community, a satisfactory agreement has been reached between the men and the Aurora, Elgin & Chicago Railroad, Wheaton, Ill. Negotiations lasted all day May 31. The men refused to accept an increase of 5 cents an hour. This the company stated was the greatest amount the financial con-

dition of the property would permit it to offer. Business men came forward and placed themselves on record as being unanimously in favor of increased rates of fare for the railway. With this in mind an increase of 10 cents an hour was granted, but for the first three months the men will receive only half of the increase in cash. Within this time it is expected that the Public Utilities Commission will grant the company the right to increase fares, and as soon as this is done the men will receive the 50 per cent of the increase previously withheld. By the new agreement the men will receive from 34 to 46 cents an hour and an additional 5 cents an hour for overtime.

Programs of Meetings

Illinois Electric Railways Association

The Illinois Electric Railways Association will hold its annual meeting at the St. Claire Country Club, St. Louis, Mo., on June 20. Breakfast for the members attending will be served in St. Louis at the Missouri Athletic Club. Britton I. Budd, president of the Chicago Elevated Railways, and member of the War Board of the American Electric Railway Association, will speak on the activities and work of the War Board in connection with electric railways. Following this there will be a general discussion of the present conditions under which railways are operating. Lunch will be served at the Country Club, and those desiring to leave in the afternoon may do so. It is expected that the majority will remain, however, as golf at the club constitutes the program for the afternoon. The meeting planned for June 20, will take the place of the regular annual meeting usually held in January, but postponed this year.

New York Electric Railway Association

Replies already received indicate a very large attendance at the thirty-sixth annual meeting of the New York Electric Railway Association at the Hotel Champlain, Bluff Point, Lake Champlain, N. Y., on June 22. As stated previously in the ELECTRIC RAILWAY JOURNAL the supper, which will take the place of the annual banquet, will be addressed by Ex-President William Howard Taft and William H. Edwards, collector of internal revenue for the second district of New York.

There will be only one formal paper. It will be by Prof. Thomas Conway, Jr., of the University of Pennsylvania, and will deal with the financial condition of the different properties and the burdens under which they are struggling. Representative railway men, bankers and manufacturers have been invited to attend and discuss the situation from their different standpoints with the purpose in mind of suggesting remedies that might be applied and the policy that should be pursued by the companies to accomplish the results desired.

Financial and Corporate

What Federal Financing Requires

War Finance Corporation Tells Why It Granted a Direct Advance of \$3,235,000 to St. Louis Company

The ruling of the War Finance Corporation on May 28 that its resources are intended to be loaned directly to war industries only in exceptional cases and upon adequate security, and its approval on the same day of an advance to the United Railways, St. Louis, Mo., have been causing much discussion in regard to what requirements are necessary to bring a utility under the exception clause of the act. The situation has now been somewhat cleared up by the issuance of a statement from the corporation in regard to the reasons for its action.

It appears that the points which actuated the corporation in granting the St. Louis advance were these: (1) the war work being performed by the company; (2) the short term of the loan; (3) the high-class collateral furnished, and (4) the prospect that the company itself will be able to handle the financing permanently through regular banking channels at the expiration of the temporary relief.

Up to the time when the War Finance Corporation issued its ruling, about 196 applications for direct aid had been received from utilities. No details have been announced in regard to the companies concerned, the policy of the corporation being to give out notice of only loans approved. It is believed by competent observers, however, that most of the pending applications will not receive favorable action, for the companies are not likely to fulfill the requirements for treatment as exceptional cases. How any individual utility will fare, however, will, of course, depend upon the facts in its particular case.

REASONS FOR ST. LOUIS ADVANCE

As stated in the preliminary note in the *ELECTRIC RAILWAY JOURNAL* of June 1, the direct loan of \$3,235,000 to the United Railways of St. Louis is for six months at 7 per cent and is secured by \$800,000 of 3½ per cent Liberty Loan bonds, and by the entire issue of \$3,500,000 of first mortgage 6 per cent bonds of the Union Depot Railroad.

Based upon a valuation recently placed by the Missouri Public Service Commission upon the United Railways, the property covered by the mortgage of the Union Depot Railroad is said to be worth more than double the amount of the advance made by the War Finance Corporation.

The official statement of the War Finance Corporation says that the cor-

poration was glad to make the loan for the following reasons:

"The United Railways serves many industries now engaged in work both necessary and contributory to the prosecution of the war.

"The security offered is in kind and value adequate under the meaning of the war finance corporation act.

"It is a short-time loan, which, because of the high class of collateral secured, is certain to be liquidated at maturity, and the temporary relief granted by this advance will give the company opportunity to make permanent financial arrangements through regular banking channels.

"The Missouri Public Service Commission has authorized an increase in fare now in effect from 5 to 6 cents, which will tend to enable the United Railways to meet the increased cost of material, increased taxes and large increases in wages recently granted to its employees.

"An ordinance was recently passed by the City of St. Louis by which all controversies between the city and the United Railways were settled and which provided a working basis between the city and its principal public utility that seems fair both to the people and to the company."

NO FEDERAL FUNDS FOR NEW ORLEANS

The New Orleans Railway & Light Company, which had \$4,000,000 of two-year 6 per cent gold debentures falling due on June 1, was unable to meet its obligations, according to an announcement made by President D. D. Curran. The reason was the refusal of the War Finance Corporation, upon which the company had relied, to advance the necessary funds. In a circular letter to the noteholders President Curran requested an extension and promised that interest would be paid promptly.

President Curran's letter to holders of the debentures follows in part:

"Greatly to our surprise, after hearings over a period of ten days before the War Finance Corporation at Washington, that board suddenly issued a ruling to the effect that 'the resources of the corporation are not intended to be loaned directly to war industries, but only indirectly through the banks.'

"In these hearings the company's showing was apparently very satisfactory. This is further evidenced by the War Finance Corporation engineer's report on the physical property, the condition in which it was maintained, and the relationship with the public authorities and its patrons.

"In spite of the abnormal operating conditions and greatly increased operating expenses, the company's earnings for the twelve months ended Dec. 31, after payment of all underlying interest, showed approximately three and

a half times the amount required for interest of these debentures.

"A further statement will be issued at an early date with regard to the terms of the proposed extension. In the meantime holders are requested not to present their debentures for payment of principal. Under these circumstances we request your active and friendly co-operation."

INTERBOROUGH APPLIES

Application has been made to the War Finance Corporation by the Interborough Rapid Transit Company, New York, N. Y., for a loan of \$37,700,000 for a period of three years. The money is needed for completing the equipment of the new subways and for elevated extensions. The loan, if granted, is to be secured by \$39,489,000 of first and refunding mortgage 5 per cent bonds of the company. The Public Service Commission has stipulated that the company shall not issue the bonds to net less than 93½ per cent.

Revenue Hearings Began on June 6 in Washington

The ways and means committee on May 29 fixed June 6 as the date for beginning public hearings on the new revenue bill and tacitly sanctioned a plan for a brief recess while the revenue measure is in the making.

The plan approved by the ways and means committee calls for a recess during July, on the theory that the revenue measure will be completed in committee on Aug. 1, with passage of the bill in the House by the middle or last of August, and a recess of the House while the bill is under debate in the Senate. Leaders are of the opinion, however, that the measure cannot be ready for the President's signature before late in October.

In a statement after the committee meeting on May 29, Chairman Kitchin announced that the revenue measure would follow the general trend outlined by President Wilson in his recent message to Congress urging the new levies. Chairman Kitchin's statement, which also outlined the rules which will govern the committee's public hearings, follows:

"The committee on ways and means announced to all concerned that it will hold public hearings at Washington beginning June 6, 1918.

"It is deemed necessary largely to increase the revenue from taxation. It seems to the committee that it will be necessary to raise the needed increased revenue chiefly from taxes upon incomes, excess or war profits, luxuries and semi-luxuries.

"In order to avoid duplication of arguments and suggestions it is requested that persons having the same problem to present will agree upon one representative to present their views.

"The hearings will be conducted in the hearing room of the committee, 321 House office building. Persons desiring to be heard should if possible apply to the clerk of the committee previous to the date set for the hearings for an assignment of time."

American Cities Net Drops

The combined income statement of the constituent companies of the American Cities Company, New York, for the year ended Dec. 31, 1917, as follows:

	1917	1916
Gross earnings from all sources.....	\$16,670,444	\$15,464,361
Operating expenses and taxes †.....	11,145,998	9,965,083
Net earnings.....	\$5,524,446	\$5,499,278
Interest, bond discount, amortization and miscellaneous.....	3,895,499	3,810,259
Net income applicable to dividends..	\$1,628,947	\$1,689,019

†Renewal and replacement reserve included.

The gross earnings of the constituent companies in 1917 increased \$1,206,083 or 7.9 per cent, but the operating expenses, taxes and renewal and replacement reserve increased \$1,180,915, while deductions increased \$85,240. The result was a decrease of \$60,072 in the income available for dividends on stock. The operating ratio in 1917 was 57.58 per cent as compared to 55.71 per cent in 1916.

If the proportionate interest of the American Cities Company in the undivided surplus earnings of the constituent companies were added to the surplus earnings for the year, the result for 1917 would be \$878,421. The parent company controls city lines in Memphis, the lighting property at Houston and the railway and lighting properties in New Orleans, Birmingham, Little Rock and Knoxville.

Allen & Peck Reorganized

C. Loomis Allen has announced his retirement from Allen & Peck, Inc., Syracuse, N. Y., operators and managers of public utilities, of which he was the head. Allen & Peck, Inc., has been reorganized into Peck-Shannahan-Cherry, Inc., with J. N. Shannahan of Hampton, Va., as president. The other new officers are: Vice-presidents, E. F. Peck, Hampton, Va., and T. C. Cherry, Syracuse; secretary and treasurer, Milford Badgero of Rochester.

Peck-Shannahan-Cherry, Inc., has taken over from Allen & Peck, Inc., the railway properties: Rochester & Syracuse Railroad, Inc., Auburn & Syracuse Electric Railroad, Syracuse Northern Electric Railway Company (South Bay line), Syracuse & Suburban Railroad, Newport News & Hampton Railway, Gas & Electric Company, Maryland Electric Railways, Annapolis.

Mr. Allen is to continue in the electric railway business in Syracuse, individually, as an engineer and manager. He will have an office in the executive headquarters of the Syracuse & Suburban Railroad in the Vinney Building.

Judge Dodge in the United States District Court at Boston, Mass., has authorized Receiver Donham of the Bay State Street Railway to issue two notes of \$26,817 each, payable on Sept. 1 and Dec. 1, 1918, respectively, in payment of the balance due on a premium of \$107,271 on a contract for workmen's compensation insurance.

Financial News Notes

Sold Under Foreclosure.—The property of the Eastern New York Railroad, Ballston Spa, N. Y., has been sold at mortgage foreclosure sale to I. W. Wiswall for \$25,000. The road consists of 15 miles of line.

Authorized Capital Increased.—The Jamestown, Westfield & Northwestern Railroad, Jamestown, N. Y., has filed a certificate at Albany, N. Y., increasing its authorized capital stock from \$200,000 to \$400,000.

Small North Dakota Property Scrapped.—The property of the Northwestern Traction Company, Brazil, N. D., the successor to the Brazil, Devils Lake & Minneapolis Electric Railway, has been scrapped. The company operated 5 miles of standard gage road between Devils Lake and North Chautauqua.

Receivers for a Pennsylvania Line.—R. W. Day and C. R. Bedford have been appointed receivers for the Scranton & Binghamton Railroad, Scranton, Pa., on application made by the Binghamton (N. Y.) Railway following a statement of President A. J. Connell admitting that the company could not meet interest due on June 1, amounting to about \$70,000.

Part of Road Reclaimed.—W. H. Foster, Mayor of the city of Elkhart, Ind., has purchased the Jackson Street portion of the St. Joseph Valley Railway, sold under foreclosure in April, and is now operating cars on it, giving a twenty-minute service. It was the purpose of Benjamin Harris & Company, Chicago, Ill., the purchasers at the foreclosure sale, to dispose of the property as junk.

Receiver for New Hampshire Road.—Judge H. H. Blanchard, Springfield, Vt., has been appointed temporary receiver of the Springfield (Vt.) Electric Railway. Last November \$100,000 of the company's bonds became due, but were not redeemed. The present is a friendly proceeding and is expected to bring about a reorganization of the company, of which E. C. Crosby, Brattleboro, is president.

Kankakee Company Would Sell.—A petition has been filed by the North Kankakee Electric Light & Railway Company, Kankakee, Ill., to sell its depot property and other facilities to the Chicago & Interurban Traction Company, Chicago, Ill., operating to Kankakee. A petition to purchase the property has been filed with the Illinois Utilities Commission by the Chicago & Interurban Traction Company.

Maine Road Ordered Sold.—A decision by the Public Utilities Commission of Maine authorizing the sale at public

auction of the Rockland, South Thomaston & St. George Railway, Rockland, has been announced by S. T. Kimball, recently appointed receiver. The road has not been in operation for five months. The owners claim it has lost money steadily because of automobile competition. The receiver values the property at \$50,000. The road is 5.7 miles long.

Additional Mahoning Fives.—Lee Higginson & Company, Boston, Mass., Drexel & Company, Reilly, Brock & Company, Graham, Parsons & Company and Montgomery & Company, Philadelphia, Pa., are offering at 94 and interest, to yield 7.65 per cent, an additional block of \$600,000 of first and consolidated mortgage 5 per cent bonds of the Mahoning & Shenango Railway & Light Company, Youngstown, Ohio, due in 1920, making at present outstanding \$10,600,000.

Survey of Traffic Will Decide Abandonment.—A careful study is being made of the revenue and expenses of the main line of the Rutland Railway, Light & Power Company, Rutland, Vt., west of West Rutland and the South Belt line operated in the city of Rutland. These two divisions have been operated at a loss for several years, and unless the expense of operation can be materially decreased, or revenue increased, the only solution may be to discontinue the operation and sell the material.

\$614,000 Three-Year Notes Authorized.—The Cumberland County Power & Light Company, Portland, Me., which owns all of the common stock of the Lewiston, Augusta & Waterville Street Railway, has been authorized by the Maine Public Utilities Commission to issue not exceeding \$614,000 of three-year 7 per cent notes dated June 1, 1918, in exchange for an equal amount of 5 per cent notes of the Lewiston company, due on June 1, the latter secured by the first and refunding 5 per cent bonds to the amount of \$858,000.

Pittsburgh-Butler Lease Discounted.—The Pennsylvania Public Service Commission has refused the application of the Pittsburgh, Harmony, Butler & Newcastle Street Railway and the Pittsburgh, Mars & Butler Railway for the lease of the latter company to the former on the ground that approval of the proposed lease "is neither necessary nor proper for the service, safety, accommodation and convenience of the public," and that the rental proposed is excessive, consisting of interest on \$900,000 of bonds and certain specified dividends on stock.

Successor Company Organized.—The Northern Cambria Railway has organized as the successor to the properties of the Northern Cambria Street Railway, Patton, Pa., recently sold to satisfy a mortgage. The property will be operated as before, with slight changes in management. Officers and directors of the successor company are: President, W. H. Denlinger, who was also president of the old corporation; Rem-

brandt Peal, vice-president; James H. Allport, Barnesboro, secretary-treasurer. The directors are F. H. Barker and Attorney P. J. Little, Ebensburg; W. B. Adair, Pittsburgh, and William Figler, Clearfield, Pa.

No Action Taken on Common Dividend.—The directors of the American Railways, Philadelphia, Pa., on May 24 took no action on the dividend on the common stock. On Dec. 15, 1917, 2 per cent was paid. Out of an issue of \$9,460,000 of common stock, \$6,429,500 has been pledged to secure an issue of a like amount of collateral trust notes, issued by the National Properties Company, which are entitled to interest at the rate of 4½ per cent from Jan. 1, 1918, to 1920. It is said that the interest on these notes will be paid at the next period regardless of the loss of income through the passing of the dividend on the common stock pledged to secure the notes.

Short Illinois Road Suspends.—The Woodstock & Sycamore Traction Company, which has been operating a railway by gasoline power between Sycamore and Marengo, Ill., via Genoa, for several years, has suspended service. It is expected land occupied by the right-of-way, which was nearly all donated by adjacent property owners, will revert to them. On May 22 a decree of foreclosure was entered in the Circuit Court of DeKalb County, in the case of the Central Trust Company of Illinois against the railroad. The decree orders the sale of the property, rights and franchises of the company. The road was built with the idea in mind of equipping it for operation by electricity.

Bondholders Purchase Northern Electric.—The property of the Northern Electric Railway, Chico, Cal., was purchased at public auction at Sacramento, Cal., on May 28 under foreclosure

proceedings, for \$1,750,000, by the reorganization committee of bondholders, represented by Walter Mansfield, San Francisco attorney. The price paid was the minimum set by United States District Judge Dooling of San Francisco, when he fixed the date for the sale. The only bid made was by Mr. Mansfield, who with O. K. Cushing and George S. Deitrick, attended the sale as representatives of the reorganization committee. The committee has obtained authority from the State Railroad Commission to issue \$5,500,000 of bonds and \$5,200,000 of stock, the sale of which is subject to approval by the commission.

Electric Locomotive Costs of New York Central.—According to the annual report of the New York Central Railroad for the calendar year 1917, the company at the end of the year had in service seventy-three electric locomotives, of which fifty-two were owned and twenty-one were held under equipment trusts. The revenue locomotive-miles (electric) during the year were 2,163,024, an increase of 13,248, as compared to 92,085,932 locomotive-miles (steam), a decrease of 1,883,689. The non-revenue locomotive-miles (electric) totaled 11,125, a decrease of 424, while the non-revenue locomotive-miles (steam) amounted to 3,162,241, an increase of 196,717. The cost of repairs per locomotive-mile (electric) was 4.01 cents in 1917 as compared to 3 cents in 1916, while the cost of repairs per locomotive-mile (steam) was 9.86 cents in 1917 and 7.56 cents in 1916.

Indianapolis Security Holders Anxious.—The Association of Indiana Security Holders of the Indianapolis (Ind.) Street Railway, operated under lease by the Indianapolis Traction & Terminal Company, has been formed by the bond and stockholders of the company to look after their interests. J. F. Wild,

president of the J. F. Wild State Bank, Indianapolis, was chosen chairman of the organization meeting. A general discussion of the railway situation in Indianapolis was made a part of this meeting. The general purpose of the meeting was to perfect a permanent organization. Higher fares were suggested as a necessary step in the proper adjustment of the situation. A committee composed of Mr. Wild, Robert Elliott and Samuel Reed was appointed to confer with Robert I. Todd, president of the company, with a view of arranging some way out of the embarrassment caused by the recent default in the payment of the license fee due to the city of Indianapolis from the company.

Mortgage for \$5,000,000 Authorized.—The Public Service Commission of the Second District of New York has granted an order authorizing the Southern New York Power & Railway Corporation, Cooperstown, N. Y., to execute and deliver to the Equitable Trust Company, New York, as trustee, a mortgage on its property to secure first mortgage ten-year bonds amounting to \$5,000,000. An issue of \$1,000,000 in bonds is authorized, of which \$952,000 shall be exchanged for \$1,085,000 first mortgage bonds of the company issued under its former corporate name, the Otsego & Herkimer Railroad, and the bonds thus redeemed to be canceled. Bonds for \$48,000, or their proceeds, are to be used for acquiring a like amount of capital stock of the Southern New York Power Company, formerly the Colliers Light, Heat & Power Company, the order also providing that a like amount of bonds shall be canceled. The commission has also canceled authority to execute a mortgage for \$10,000,000 and issue 5 per cent bonds under an order granted on Oct. 19, 1916.

Electric Railway Monthly Earnings

CAPE BRETON ELECTRIC COMPANY, LTD., SYDNEY, N. S.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Mar., '18	\$39,516	*\$30,124	\$9,392	\$6,534	\$2,858
1m., Mar., '17	33,753	*20,905	12,848	6,552	6,296
12m., Mar., '18	476,976	*327,068	149,908	78,600	71,308
12m., Mar., '17	407,386	*237,115	170,271	78,553	91,718

COLUMBUS (GA.) ELECTRIC COMPANY

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Mar., '18	\$96,195	*\$41,609	\$54,586	\$32,658	\$21,928
1m., Mar., '17	87,851	*33,907	53,944	28,350	25,594
12m., Mar., '18	1,139,255	*444,655	694,600	370,623	323,977
12m., Mar., '17	936,494	*362,619	573,875	342,788	231,087

GALVESTON-HOUSTON ELECTRIC COMPANY, GALVESTON, TEX.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Mar., '18	\$215,591	*\$139,579	\$76,012	\$38,608	\$37,404
1m., Mar., '17	157,469	*112,719	44,750	36,417	8,333
12m., Mar., '18	2,210,888	*1,452,073	758,815	457,659	301,156
12m., Mar., '17	1,953,072	*1,254,997	698,075	439,695	258,380

HOUGHTON COUNTY TRACTION COMPANY, HOUGHTON, MICH.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Mar., '18	\$31,834	*\$17,356	\$14,478	\$4,909	\$9,569
1m., Mar., '17	30,497	*19,606	10,891	5,026	5,865
12m., Mar., '18	346,535	*217,564	128,971	60,925	68,046
12m., Mar., '17	334,706	*194,572	140,134	62,948	77,186

HUDSON & MANHATTAN RAILROAD, NEW YORK, N. Y.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Apr., '18	\$577,897	*\$273,528	\$304,368	\$216,907	\$87,461
1m., Apr., '17	524,053	*244,504	279,549	217,880	61,669
4m., Apr., '18	2,280,554	*1,129,244	1,151,310	869,528	281,782
4m., Apr., '17	2,107,514	*954,778	1,152,736	869,179	283,557

INTERBOROUGH RAPID TRANSIT COMPANY, NEW YORK, N. Y.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Apr., '18	\$3,539,667	*\$2,013,570	\$1,526,097	\$1,180,511	\$345,586
1m., Apr., '17	3,521,020	*1,693,020	1,827,000	1,019,545	\$807,455
10m., Apr., '18	33,683,685	*18,910,561	14,773,124	11,179,186	\$3,593,938
10m., Apr., '17	33,097,412	*16,058,579	17,038,833	10,019,631	\$7,019,202

PHILADELPHIA (PA.) RAPID TRANSIT COMPANY

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Apr., '18	\$2,642,090	\$1,634,502	\$1,007,588	\$814,126	\$193,462
1m., Apr., '17	2,456,300	1,382,948	1,073,352	813,746	259,606
10m., Apr., '18	25,060,549	15,132,617	9,927,932	8,125,650	1,802,282
10m., Apr., '17	23,457,395	13,162,273	10,295,122	8,142,214	2,152,908

PHILADELPHIA & WESTERN RAILWAY, UPPER DARBY, PA.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Apr., '18	\$45,804	\$26,958	\$18,846	\$14,083	\$4,762
1m., Apr., '17	45,645	22,683	22,962	12,518	10,444
12m., Apr., '18	583,690	314,664	269,026	162,736	106,290
12m., Apr., '17	529,604	256,999	272,605	150,479	122,126

PUGET SOUND TRACTION, LIGHT & POWER COMPANY, SEATTLE, WASH.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Mar., '18	\$965,911	*\$581,508	\$384,403	\$207,665	\$176,738
1m., Mar., '17	768,418	*478,629	289,789	191,724	98,065
12m., Mar., '18	10,023,684	*6,201,638	3,822,046	2,396,774	1,425,272
12m., Mar., '17	8,461,666	*5,206,585	3,255,081	2,234,954	1,020,127

REPUBLIC RAILWAY & LIGHT COMPANY, YOUNGSTOWN, OHIO

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Apr., '18	\$463,035	*\$329,064	\$133,971	\$98,424	\$35,547
1m., Apr., '17	368,125	*250,175	117,950	80,425	37,525
12m., Apr., '18	5,297,194	*3,696,383	1,600,811	1,073,563	527,248
12m., Apr., '17	4,183,498	*2,565,525	1,617,973	881,749	736,224

TWIN CITY RAPID TRANSIT COMPANY, MINNEAPOLIS, MINN.

Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Apr., '18	\$776,967	\$555,212	\$221,755	\$155,560	\$66,194
1m., Apr., '17	839,072	534,447	304,625	405,402	159,223
4m., Apr., '18	3,234,357	2,436,302	798,055	621,690	176,365
4m., Apr., '17	3,480,984	2,333,906	1,147,078	800,471	346,607

*Includes taxes. †Includes non-operating income. §Includes accruals under rapid transit contracts with city payable from future earnings.

Traffic and Transportation

N. J. Fare Argument June 12

Direct Testimony All In, New Jersey
Commission Will Hear Oral
Argument at Newark

Counsel for the company and for the municipalities opposing the application of the Public Service Railway to the Board of Public Utility Commissioners for permission to charge a 7-cent fare with 2 cents for a first transfer and 1 cent for a second transfer have begun the preparation of their argument on the evidence submitted and it will be heard by the commissioners at Newark on June 12. President Thomas N. McCarter will appear for the railway and both Marshall Van Winkle and George L. Record will be heard for the municipalities opposing the proposed increase.

CASE CONCLUDED ON MAY 30

The original plan of the company called for the presentation of testimony in rebuttal, but this was not followed, and the case was concluded on May 30 with a short cross-examination of Dr. Delos F. Wilcox, public utility and franchise expert, who appeared as the chief witness for the opposition. When the direct testimony of Dr. Wilcox ended, David F. Atkins, electrical engineer, took the stand for cross-examination.

After a brief conference with Commissioner Slocum, Commissioner March set the date for the argument and stated that each side would be given one hour and a half, with two hours as the limit. Mr. Van Winkle will discuss the jurisdictional questions in his argument and Mr. Record will take up the other elements of the case.

The petition for the fare raise was filed with the board by the railway on March 5, and March 14 was fixed as the date for the first hearing. On March 11 the executive committee of the New Jersey League of Municipalities and lawyers representing municipalities met and, after deciding to oppose the application, employed Mr. Van Winkle as chief counsel. Mr. Record was retained a few days later as Mr. Van Winkle's associate.

BRIEF REVIEW OF HEARINGS

When the opening hearing was called in Trenton on March 14, Mr. Van Winkle, aided by Corporation Counsel John Milton of Jersey City, secured a delay to March 26, when President McCarter took the stand as the railway's first witness. He was followed on subsequent days at hearings in Newark and in Trenton by other officials of the company and a number of experts. There was then an adjournment while Mr. Van Winkle and Mr. Record, representing the protesting municipalities, prepared for the cross-examination of the company's witnesses.

The presentation of the opposition's case began on May 22 with hearings on May 23 and 24, and it was continued on May 27. The board did not sit on May 28. but it reopened the hearing on May 29.

Milwaukee Fare Five Cents

Commission Decision Places Entire
Single-Fare Area on This Basis
—Other Rates Undisturbed

On the night of June 1 the Railroad Commission of Wisconsin handed down its decision on the appeal of the Milwaukee Electric Railway & Light Company for an increase in fares. At 10 o'clock it put the decision into the hands of officials of the company, and at midnight the orders of the commission went into effect.

NEW RATE EFFECTIVE JUNE 9

The decision prohibited the sale of tickets after midnight on June 1, and their being honored by the company on its cars after midnight of June 9. It provides that the company shall redeem the tickets on a cash basis from midnight, June 9, to midnight, July 9, at the rate of 4 cents each, and, if more than three are offered for redemption they shall be redeemed at the rate of four for 17 cents, five for 21 cents and six for 25 cents.

While the decision mentions specifically that zone fares, children's fares and suburban fares are not to be disturbed, no mention is made of transfers. In the statement issued by the commission on the increase in fares, it says:

"In substance, this decision places the entire single fare area on a 5-cent basis. Children's fares and zone areas are not disturbed. Rates for suburban traffic within the suburban areas are not changed.

"The commission, to a large extent, has adopted the position of the city attorney as to principles to be used in arriving at a valuation, although the valuation arrived at exceeds the amount claimed by the city.

"In another proceeding, the commission is at this time considering the matter of electric railway service in Milwaukee, which is also brought in issue by the pleadings of these proceedings. It is the fundamental obligation of a public utility to furnish adequate service to the public, and the company is required to give this matter immediate consideration.

"On the whole, the commission finds that an emergency condition exists, which must be met by an increased revenue."

PETITION FILED IN 1915

The order was in response to the company's petition for the adjustment of city and suburban fares filed on Nov. 6, 1915. The commission ascertained that the valuation of the railway, electric and heating utilities of the city company on Jan. 1, 1914, was \$26,093,372 and the investment value \$26,160,742. The commission also found

that the railway investment in the single-fare area, including the property of the traction company therein on Jan. 1, 1917, was \$17,660,970, exclusive of material and supplies, for which \$500,000 was allowed. The commission excluded items carried by the company into operating expenses for fore-shortened life and charged the same against the depreciation reserve. It estimated depreciation at 3 per cent on depreciable property, with 4 per cent interest on reserve balances. Taking 1916 adjusted operating expenses, and with this allowance for depreciation, the commission estimated that with 1916 revenues and 1918 probable expenses the company would earn 7.24 per cent to 7.6 per cent on the investment with a 5-cent cash fare. The commission made no order respecting the suburban fares, stating this matter was still under investigation. The company estimates the return with a 5-cent fare without any allowance for further increases in costs about 6.75 per cent.

An interview with James D. Mortimer, president of the company, in which he comments on the Milwaukee decision and the general outlook for public utilities, is published on page 1092 of this issue.

I. T. S. Restores Service

The Illinois Traction System announced revised summer passenger schedules effective on Sunday, May 26. The new time card contained changes in train time on all divisions and is considered an improvement over that which has been in effect since last February, when the company was compelled to revise its train service owing to abnormal conditions existing then.

Limited service is restored on the main divisions and in many cases the running time of local trains is shortened. Parlor car service between Peoria, Springfield and St. Louis is restored. The time between Peoria and St. Louis for the two parlor car trains is cut down to six hours. In addition to the parlor car limiteds provision is made for two additional limited trains each day between Springfield and St. Louis.

On the Peoria-Bloomington-Decatur division there will be two limited trains daily in either direction in addition to the local trains, which will run from terminal to terminal without change. A series of limited runs is also provided between Bloomington and Mackinaw Junction making direct connection with trains on the Peoria-St. Louis division.

Through limited service between Springfield, Decatur and Champaign is also provided and the running time of local trains between these points is shortened.

Will Use Student Trainmen

Washington Railway & Electric Company Issues Circular to High School and College Students

Owing to the great inrush of war workers to Washington, D. C., which has taxed the capacity of the public utilities of the city to the limit, coupled with the difficulty of obtaining labor, the Washington Railway & Electric Company has decided to use student employees. Circulars are now being distributed among the schools and colleges, appealing to the patriotism of the boys. The school authorities, having heard of the success of a similar plan which has been carried out in Denver, are offering their friendly co-operation in this campaign, and a certain degree of success seems already to be assured.

The circular, which explains itself, reads, in part, as follows:

Do you want to serve your country and help to win the war?

Do you want to take the place of a man who has been drafted and taken from an occupation vital to the prosecution of the war, to offer his life for the cause of democracy?

Do you want to be a substitute for one who, in the opinion of our government, has reached the age at which he has physical resistance enough to stand the strain of actual warfare?

Do you want to do the work of a man who has been called upon to leave his job at home and stand the supreme test of his manhood by facing the guns of the enemy—a test which you yourself may later be called upon to stand, if all do not now strain their every energy to bring this war to a quick conclusion?

The Washington Railway & Electric Company, whose motormen and conductors are being called away to fight in numbers increasing all the time, is, like other public service corporations, in danger of having its man-power sapped by the draft to such an extent that it will not be able to give the service which this city, the center of the vast fighting machine, urgently requires.

The Washington Railway & Electric Company needs 100 high school boys or college students to take the places of men who are being called upon to fight.

The company offers the same money to boys as it pays to men—31 cents an hour to start.

Instruction for sixty hours is necessary as a preliminary, in a school for street car men and in actual training on the cars.

Other qualifications for this work are the alertness and enthusiasm with which most real American boys on the verge of manhood are endowed.

Desire for patriotic service is a stimulus. Pleasant and healthful, but above all, useful and necessary, work is the result.

The material reward is that of a mature man.

The moral reward is that of a patriotic citizen.

If you would help, fill in the application form below and mail it to the Washington Railway & Electric Company, Traffic Department, Fourteenth and C Streets, Northwest, Washington, D. C.

The B. C. Advertising Policy

The advertising policy of the British Columbia Electric Railway, Vancouver, B. C., is set down in *The Buzzer*, published by the company, as follows:

"We do not advertise for any other purpose than to sell our service. To spend a larger amount than necessary would be unfair to the public, who have to pay the cost of the service. The papers and magazines used by us for advertising are chosen because they suit our purpose as advertising mediums, and not to hush up any criticisms of this company. On the other

hand, we do not advertise in papers which insinuate that they will stir up public clamor if we do not.

"We are not afraid of criticism when it is just. We are willing and anxious for the public to judge for themselves. But publishing garbled reports of affairs and printing underhand, spiteful opinions about this company is just the same as the propaganda of Germany to stir up dissension among the Allies, to pervert public opinion and to prevent the formation of clear-cut, unbiased judgment based on facts.

"Just as Germany is fighting against democracy, these papers are fighting against good public service—your public service. If you want Germany to win, help along its propaganda. If you want these papers to succeed in their personal grudge against this company until the service is affected, support them—buy them and advertise in them."

Railway Voted a Six-Cent Fare

The proposal for an increase in the fare of the Sioux Falls (S. D.) Traction Company to 6 cents, submitted to a vote of the people on May 28, went "over the top" by a vote of 1180 to 894.

The election was conducted in real political style. Large cloth banners mounted on each side of the cars proclaimed that 1917 revenues would not pay 1918 expenses. Appeal was made to the public to vote "yes" for the 6-cent fare. Advertising cards suspended in the center of the cars were also used effectively. Good work in putting the proposition to the public was done by the platform men for a week in advance.

Publicity was given through newspaper talks for five days preceding the election. A special eight-page emergency edition of *On the Cars* was issued and election cards were distributed by employees and workers stationed at the polling places. Special cars were run to the packing houses and carried the men direct to the polls free of charge.

It was noted in the *ELECTRIC RAILWAY JOURNAL* for May 25, page 1032, that a resolution had been passed by the City Commission to submit the question of a 6-cent fare for the Sioux Falls Traction System to the voters at a special election that had been called for May 28.

This action was the direct result of a strike of the employees of the company about two months ago which resulted in a general tieup of service for two days. The men demanded an increase in wages from 22 to 27 cents an hour. The auditors' report for 1917 showed that the company could not grant the demand without imperiling its solvency. An investigating committee of citizens was named and suggested a 1-cent increase in fare, upon the strength of which report the wage increase was granted.

The company is pleased with the result of the election and with the cordial relation which exists between it and its patrons.

Atlanta Rate Hearing Begun

Commission Adjourns Case to June 12 After Two-Day Session Questioning Company's Officers

The hearing of the petition of the Georgia Railway & Power Company, Atlanta, Ga., for an increase in rates was opened on May 22 before the Railroad Commission of Georgia. Among other advances the company wants a 6-cent fare and 2 cents for a transfer.

The morning session was occupied with the reading of the petition, by J. Prince Webster, rate expert of the commission, and the arguments of Jack J. Spalding, principal attorney for the company, and the reply of W. A. Wimbish, attorney for the citizens' committee which is opposing the proposed increases in rates.

BURDEN OF PROOF ON COMPANY

At the conclusion of the statement by Attorney Wimbish, Chairman Candler of the commission announced that the burden of proof was upon the company to show that the increases which it seeks are justified by the facts in the case.

H. M. Atkinson, chairman of the board of directors for the company, took the stand as the first witness and gave an exhaustive analysis of the reasons advanced which he claimed render these increases absolutely necessary. The afternoon session was consumed by the conclusion of the testimony of Mr. Atkinson and his cross-examination by several of the attorneys representing opposing interests, and the testimony of Preston S. Arkwright, president of the company.

The hearing was continued on May 23 with Mr. Arkwright as the principal witness, but late on that day was adjourned until June 12. This was done upon representation of counsel for the city of Atlanta and the people's committee that they were unable to cross-examine Mr. Arkwright because they had not had access to the books and figures presented by the company. Counsel for the opponents stated that it would be impossible to proceed intelligently until the records of the company were produced for inspection.

COMPANY OBJECTS TO DELAY

Attorneys for the company objected to a request for postponement, and took exception to the statement of Mr. Watkins, of counsel for the people's committee, that the officers had exhibited any aversion to showing their figures. They contended that the company was asking for an increase as an immediate and emergency measure.

Testifying before the commission on May 23 Mr. Arkwright stated that the company's petition for an increase of 53½ per cent in all departments is only to meet an emergency and that when the emergency was over the company expected that the commission would again readjust the rates in accordance with the conditions as it found them at that time.

Blanket Increase in Indiana

Commission There Authorizes All Interurban Railways to Charge 2½ Cents a Mile

An order was issued by the Public Service Commission of Indiana on May 30, authorizing all interurban railways not heretofore granted increases in rates of fare to charge 2½ cents a mile instead of 2 cents, and to sell 1000-mile mileage books at the rate of 2 cents a mile effective on June 3. Increases to the 2½-cent rate had already been granted on petition and hearing, to the Union Traction Company of Indiana, Indianapolis & Cincinnati Traction Company, Chicago, South Bend & Northern Indiana Railway and the Marion & Bluffton Traction Company.

The commission regarded it as merely a matter of time until the other interurban electric lines in the State would file petitions for similar increases, and in view of the federal order increasing steam railroad rates to 3 cents a mile, it was deemed expedient to issue a general order covering Indiana.

The commission's order refers to the fact that the interurbans are placed in a perilous position by increased cost of operation, and that in many cases there has been a decrease in travel due to the improvement of the highways and the increased use of passenger automobiles and trucks which are doing a local freight business. The order indicates that if the 2½-cent rate should not prove sufficient after a fair trial, a further advance in passenger fares will be considered by the commission.

Pacific Electric Feels the Need

The Pacific Electric Railway, Los Angeles, Cal., wants to raise passenger rates on its lines radiating from Los Angeles, and reduce the number of trains in the city, in order to meet increased operating expenses, increased cost of materials and increased taxes.

The company has filed an application with the State Railroad Commission for authority to raise rates, and, it is announced, will file an application with the Los Angeles Board of Public Utilities for permission to reduce the number of trains.

In the application to the State Railroad Commission it is pointed out that the road has never paid dividends to stockholders, and permission is sought to raise rates sufficiently at least to enable the company to meet its annual fixed expenses. A schedule of the proposed new rates will be filed later. It is believed that an increase equivalent to 1 cent to 1½ cents per passenger will be necessary.

Though the Pacific Electric Railway is not under government control it planned to increase wages on June 1 of all employees receiving less than \$250 a month. This is in line with the policy adopted by the government. In speaking of the proposed increase Paul Shoup, president of the road said:

"The Pacific Electric Railway has not been earning operating expenses,

taxes and interest. The increased costs of labor and material for operation and maintenance, the jitney and the use of privately owned automobiles on good roads have been the chief causes contributing to this result. We ask that rates be increased in such amounts, that there will be returned a revenue sufficient to meet the annual fixed charges. Last year 73 per cent of our revenue came from passengers, who averaged 9 cents each. We get less than 1½ cents per mile per passenger, and our commutation rates probably do not exceed two-thirds of a cent per mile per passenger."

Fares Up on Wheeling Suburban

Upon the evidence submitted by the West Virginia Traction & Electric Company, Wheeling, W. Va., in connection with its application to the Public Service Commission of West Virginia to charge 6 cents on its railway lines and to do away with school tickets, the commission recently decided that the petitioner was not receiving a just rate of return on the fair value of that portion of its property devoted to the use of the public; that the fair value of the property for rate-making purposes was approximately \$1,000,000, and that an increase in its present rates from a 5-cent fare to 6 cents for each zone would under present conditions produce a reasonably fair rate of return. It was therefore ordered that the petitioner be authorized to cancel all monthly commutation rates, except school rates, and put into effect the following rates:

PASSENGER RATES

Wheeling to Elm Grove, or intermediate points	6 cents
Wheeling to Triadelphia	12 cents
Wheeling to Roneys Point	18 cents
Wheeling to Valley Grove	24 cents
Wheeling to West Alexander	30 cents

SCHOOL RATES—GOOD ONLY FOR MONTH ISSUED

Wheeling to Elm Grove	\$1.40
Wheeling to Triadelphia	2.75
Wheeling to Roneys Point	4.15
Wheeling to Point Mills	4.15
Wheeling to Valley Grove	5.50
Wheeling to West Alexander	6.90
Elm Grove to Wheeling	1.40
Elm Grove to Triadelphia	1.40
Elm Grove to Roneys Point	2.75
Elm Grove to Point Mills	2.75
Elm Grove to Valley Grove	4.15
Elm Grove to West Alexander	5.50

Good only from 7 a. m. to 6 p. m. on school days.

Tickets issued to scholars upon certifies from school principals.

The petitioner was authorized to charge 1 cent for transfers to the Mount de Chantal division. The commission found that objections to the character of the service rendered by the company were sustained by the evidence but said that improvement in service is expected as a result of the increase in rates. The increase in rates is effective until further order of the commission. The company is ordered to keep an accurate account of the revenues derived and expenses incurred by it for a period of one year from June 1, 1918, and at the expiration of that period to file with the commission a detailed statement thereof.

The order of the commission became effective on May 10.

Alive to the Opportunity

Business Men of Southwest Discuss Matter of Truck and Electric Railway Transportation

At the war convention of the Inter-Community League of the Southwest, in Kansas City on April 24 and 25 every discussion of increased agricultural production or of industrial development in Kansas, Missouri and Oklahoma led back to transportation.

While there is considerable hauling of freight by truck in these States, regular service is maintained only over the very small mileage of rock roads. Merchants in small towns on electric railways are, however, in good position, since they are receiving their merchandise by the interurbans. The tendency to keep railroad freight cars off of short haul work is inclining merchants to seek delivery by interurbans to stations from which they can conveniently get goods to their stores by truck.

Comments during the session of the league indicated that there is prospect of development of business by jobbing houses in centers served by interurban electrics.

During the present halt in road improvement, communities are going to investigate their highway plans carefully to determine whether the roads to be improved should not be planned with reference to available interurbans, rather than with reference to long-distance automobile passenger travel. While freight transport by truck is feasible on regular routes, over comparatively short hauls, it is a problem to finance or operate a long route. It was pointed out that the joining of facilities of electric line and rock road would vastly extend high-class service.

The Inter-Community League, at its convention, made plans for getting information on the industrial resources of the three States. The league will maintain a committee, and possibly a traveling representative, to study and advise on industrial questions, and a definite program of education towards improving the manufacturing resources will be carried on. Industrial commissioners of several railroads addressed the league. They will provide expert help in gaging industrial possibilities, and in arranging to get information that would be required by investors or manufacturers.

City Will Investigate

Tacoma's new City Council plans to investigate the railway service furnished by the Tacoma Railway & Power Company and the Pacific Traction Company. Since the decision of the State Supreme Court confirming cities' powers that were, in a measure, assumed by the Public Service Commission, it is possible that the proposed hearing which the Public Service Commission was to grant on transportation difficulties in Tacoma may be abandoned in favor of one in which the City Council will be the principal representative of the people.

Governor Confident of People

Executive of Tennessee Sees Hope of Relief for Public Utilities if They Prove Their Case

Tom C. Rye, Governor of Tennessee, has replied to T. H. Tutwiler, Memphis, chairman of the committee on public utility conditions for Tennessee, which recently appealed to the Governor to ask the co-operation of the public in helping the concerns to maintain their maximum efficiency in line with President Wilson's request for co-operation. The Governor says that he is convinced that the citizens understand and appreciate the conditions that obtain at present and that they will not withhold any concession necessary for the successful operation of the public utilities. He says in part:

THE GOVERNOR'S LETTER

"I am sure you will agree with me in the statement that the people should be required to pay only just and reasonable rates and charges so as to enable these corporations to render adequate and efficient service to the public and at the same time yield a reasonable return to the owners.

"While it is true that costs have increased to the utilities, I cannot ignore the fact that these corporations are acting and operating under certain franchises, charters and contracts with the cities, towns and people they serve, each limited to the powers conferred and duties imposed by the express terms of their different charters and contracts, and these are, in their nature, purely local.

"The right to change or alter the terms of these contracts belongs exclusively to the people directly interested. Therefore, I would not feel at liberty to assume to advise these interested parties as to what they should or should not do in the premises.

"Judging from my experience with the people, I am constrained to believe that all that is necessary in order to afford these corporations the relief to which they may be justly entitled is a clear presentation of existing facts with reference to each particular corporation so that the people may see and understand the reasonableness and the necessity for the changes asked. And when this is done, I confidently believe that those who are authorized to act will not hesitate to do so, and that relief will be given where the facts that relief will be given in such measure as the facts and circumstances would seem to justify."

The appeal to the Governor was reviewed in the *ELECTRIC RAILWAY JOURNAL* for June 1, page 1071.

Basis of Toronto Car Order Appeal

In the matter of the appeal of the Toronto (Ont.) Railway from the fine by the Ontario Railway & Municipal Board for not complying with its order to place in operation 100 new cars, the whole question of Provincial authority

and power under "the British North America act" is raised.

Among the grounds of appeal may be briefly summarized the following:

That the order is not one which the board could make of its own motion.

That the Ontario Railway Board has no jurisdiction to make such an order, either on its own motion or on application.

That the evidence shows that the company did use its best effort to comply with the order to purchase 100 cars.

That the evidence shows that it was impossible to obtain the cars at the time of the order owing to war conditions.

That the company should not have been ordered to purchase such cars and the order was improperly made.

That the order is against the weight of evidence and contrary to law.

That the Legislative Assembly had no power to enact the railway and municipal board act, and that D. M. McIntyre and Andrew Ingram have not been validly appointed as commissioners under such act for making such orders, and have no jurisdiction to make the order complained of, upon the ground that the appointment of the said commissioners is not within the legislative authority of the Province of Ontario.

Hudson Tunnel Raises Fares

In conformity with general order No. 28, issued by the Director General, United States Railroad Administration, under date of May 25, 1918, there will be a general advance in all passenger fares of the Hudson & Manhattan Railroad, operating under the Hudson River between New York and New Jersey, and effective at 12.01 a.m., on June 10 the following rates of fare will apply on the lines of the company:

Between all stations in New York City (both uptown and downtown) and Jersey City and Hoboken, in either direction, a uniform fare of 10 cents will be collected. Between local stations on Sixth Avenue, New York City, the 5-cent fare will apply. All tunnel fares will be collected in cash, by deposit of the exact amount in the coin boxes at the entrances to stations. Between all stations in New York (both uptown and downtown), Jersey City and Hoboken and Newark, N. J., one-way tickets will be sold at 27 cents and half one-way tickets at 14 cents. Such tickets are valid only for continuous passage, without stop-over, in the direction first presented. Round-trip tickets will be discontinued.

The present charges are 5 cents for downtown passengers and 7 cents for uptown passengers. The Hudson & Manhattan Railroad was taken over by the government for operation by the Federal Railroad Administration on Jan. 1.

The company has announced that all commutation tickets will be honored until and including the date of their expiration.

Transportation News Notes

Bay State Rates Suspended.—The Public Service Commission of Massachusetts on May 31 ordered to be suspended until June 16 proposed changes by the Bay State Street Railway in rates of fares and in commutation and excursion tickets.

Muskegon Wants Six Cents.—The Muskegon Traction & Lighting Company, Muskegon, Mich., has petitioned the City Council for a 6-cent fare. The company is operating without a franchise. It sells twenty-eight workingmen's tickets for \$1.

Seven-Cent Unit Proposed.—The Norfolk & Bristol Street Railway, Foxboro, Mass., has notified the Public Service Commission of Massachusetts that it will increase its fare from 6 cents to 7 cents, beginning June 29. The company operates 21 miles of line.

Milwaukee Northern Wants Higher Rates.—Demand for higher rates for interurban and city lines and for freight is presented by the Milwaukee Northern Railway, Cedarburg, Wis., in a petition which it has filed with the Wisconsin Railroad Commission.

Increase in Joint Rates.—The International Railway has filed a change in its tariff schedules affecting joint passenger traffic in connection with the Buffalo, Lockport & Rochester Railway. The new schedule shows increases in one-way and round-trip fares and chartered car rates to all stations.

Six-Cent Fare for White Plains.—The Common Council of White Plains, N. Y., has granted permission to the Westchester Street Railroad to charge a fare of 6 cents. The permit is temporary and will have effect between June 1 and July 31. At the end of the time the company is obliged to show an improvement in service.

Appeal from Six-Cent Order Disallowed.—The motion of the City Councillor of St. Louis, Mo., for a rehearing of the case in which the Public Service Commission of Missouri recently granted the United Railways, St. Louis, permission to charge a 6-cent fare on lines in St. Louis, for the period of one year beginning June 1, has been overruled by the commission.

Another Road Adopts Six-Cent Unit.—The New Bedford & Onset Street Railway, New Bedford, Mass., on May 29 filed with the Public Service Commission of Massachusetts a new schedule of fares calling for an increase of from 6 cents to 7 cents. The new rates will become effective on June 30. Minor increases in ticket fares are also asked.

Worcester to Charge for Transfers.—The Worcester (Mass.) Consolidated

Street Railway has filed a new tariff with the Public Service Commission of Massachusetts proposing to increase the fare unit on all lines outside of the city of Worcester from 5 cents to 6 cents. Fares in the city of Worcester will be 5 cents, with 1 cent additional for each transfer issued.

Portland Rates Suspended Until Sept. 11.—The Public Utilities Commission of Maine has suspended, until Sept. 11, the establishment of higher fares on the Portland city system operated by the Cumberland County Power & Light Company under lease from the Portland Railroad. The company has now put in all its testimony, but that of the opposition has not entirely been heard.

City Protests Pittsburgh Zones.—The city of Pittsburgh, Pa., has protested to the Public Service Commission of Pennsylvania against the system of zone fares proposed by the Pittsburgh Railways. The city contends that the new rates, intended to become effective on June 20, are arbitrary, unreasonable, unjust and discriminatory. It professes to see in the changes an attempt by the receivers to find a ready means of meeting the various fixed and capital charges arising by reason of the present financial structure of the company.

Village Agrees to Fare Advance.—After obtaining an amendment to its franchise, the Hudson River & Eastern Traction Company, Ossining, N. Y., has increased the fare on its lines from 5 cents to 6 cents. The company recently increased the fare to 7 cents, without the permission of the village officials, but following the decision of the Court of Appeals in the so-called Rochester case the company restored the 5-cent fare. Then the company sought permission of the village officials, who acquiesced in an advance of 1 cent.

Trenton Fare Hearing Under Way.—The hearing on the application of the Trenton & Mercer County Traction Corporation, Trenton, N. J., for a 6-cent fare over all its lines was set for continuation before the Board of Public Utility Commissioners on June 3. It was planned by the commission to proceed from day to day with the taking of testimony in the case, but Commissioner Slocum announced that because of other important matters pending before the board, it would be impossible to give more than one day of next week to the Trenton case.

Time-tables in Brooklyn Cars.—In accordance with an order of Public Service Commission for the First District of New York, all of the cars on the surface lines of the Brooklyn (N. Y.) Rapid Transit Company are carrying conspicuous placards containing a time-table, with the departure of each car and the time it is due at various points; the number of cars operated on each line, the number of each car, and the headway between cars. This is one of the results of the recent inquiry by the commission into alleged inadequate service in Brooklyn.

Albuquerque Goes to Six Cents.—At their meeting on May 21 the City Commissioners of Albuquerque, N. M., approved the proposal of the City Electric Company to raise railway fares from 5 cents to 6 cents. The commissioners, however, before they acted asked that the people approve the proposed ordinance, and requested the City Electric Company to initiate the legislation by filing with the commissioners the petition required by law, bearing a minimum of 670 signatures of qualified voters. This the company did.

Twin City Wants Fare Conference.—Horace Lowry, president of the Twin City Rapid Transit Company, Minneapolis, Minn., on May 31 sent a formal letter to the City Council asking consideration of the question of higher fares. This was in accord with Mr. Lowry's recent statement, following a presentation of the financial situation confronting the company. The letter does not ask that higher fares be granted. It asks rather that the Council grant a hearing at which the company may present its case in full detail for discussion.

Staggered Hours Being Urged.—The Kansas City (Mo.) Railways is advertising in its cars and in the newspapers to stimulate early shopping and especially early homegoing in order to reduce the traffic at the busy hours. The company is also discussing with managers of industrial plants the staggering of working hours to scatter the traffic morning and evening. City officials may be asked to assist in the attainment of this object although industrial plant managers generally are inclined to enter some sort of an arrangement for the distribution which the company desired.

Fare Raise in Manchester.—The Manchester (N. H.) Street Railway, included in the system of the Manchester Traction, Light & Power Company, increased its fares on May 15 with the approval of the Public Service Commission of New Hampshire. Where 5 cents has been charged heretofore 6 cents is now being charged and where 7 cents was charged heretofore 8 cents is now being charged. No other changes have been made. School children's tickets are being sold at the same price and on the same conditions as heretofore, namely, twenty-five tickets for \$1 or six tickets for 25 cents.

Staggered Hours at Fort Worth.—Owing to the recent eight-hour decision of the national arbitration board in the packing-house cases, the closing hour at Fort Worth has been 3 p.m. instead of 5 p.m. since May 4. This makes it possible for the Northern Texas Traction Company to handle the afternoon rush business from this source in time to use the same cars elsewhere for the store and office peak. Although the general direction of travel is opposite in direction, the packers moving inbound, the change in hours has brought notable relief to the company at a period of the day during which its facilities are sorely taxed.

Alton Would Charge Seven Cents.—A petition has been filed with the Public Utilities Commission of Illinois by the Alton, Granite & St. Louis Traction Company asking permission to raise fares in Alton from 5 cents to 7 cents, beginning July 1. An additional cent for each transfer also is proposed. Under the proposed schedule the round-trip rate between Alton and St. Louis would be the same as now, but a raise is asked for a single fare. Increases are asked for the monthly commutation books and the \$4 books. Increases in the price of commutation books between Alton and East Alton and Wood River are proposed.

Straight Five-Cent Fare for Lynchburg.—The State Corporation Commission of Virginia has authorized the Lynchburg Traction & Light Company, Lynchburg, Va., to discontinue the sale of six tickets for 25 cents and 3 1/8-cent school tickets and to charge a straight 5-cent fare. Application for this permission was made to the commission in December last. The case was heard on Feb. 26, was continued and further heard and argued on April 11. Unused tickets are to be redeemed at the price paid for them upon presentation at the office of the company on or after the date on which the new fare tariff goes into effect.

Maryland Road Files New Rates.—The Cumberland & Westernport Electric Railway, Cumberland, Md., on May 30 announced a new schedule of rates of fares which will go into effect on July 1. The change of passenger fares adds 1 cent per zone for each zone of the system above the rate of 5 cents now in force. Instead of paying 55 cents to ride from Cumberland to Westernport an additional 4 cents will be collected. From Cumberland to Frostburg the increase will be 3 cents, etc. The fare from Cumberland to Narrows Park remains the same. The clergy reduced-fare ticket book is increased 50 cents for 100 tickets, but miners riding on regular miners' cars will still be carried at 5 cents per zone.

Zone Fares Increased in Maine.—The Public Utilities Commission of Maine has handed down a decision increasing the zone fares on the Lewiston, Augusta & Waterville Street Railway from 5 cents to 7 cents, the zone boundaries remaining as heretofore. The decision involves 165 miles of track and some twelve cities and towns. On the very few zones on which more than a 5-cent fare had previously been charged, a proportional increase was granted. During its effort to secure higher fares the company carried on an extended publicity campaign to prove the necessity of the increase asked. This campaign was conducted by W. W. Harris, who is associated with Ivy L. Lee in the firm of Lee, Harris & Lee, New York.

I. U. T. Fare Increase Allowed.—The Public Service Commission of Indiana on May 27 issued an order authorizing the Union Traction Company of Indiana to increase its interurban passenger rates from 2 cents to 2 1/2

cents a mile, effective on June 3. Ten cents is established as the minimum fare for a single passenger. The unit of computation is a zone of four-tenths of a mile at 1 cent a unit. This is in keeping with the "penny zone" plan established some time ago. The order will continue as a war emergency measure during the pleasure of the commission, and is intended to maintain the efficient operation of the company, but not to produce sufficient revenue for the payment of any dividends.

Women Only in an Emergency.—The Pacific Electric Railway, Los Angeles, Cal., has stated its attitude with respect to the use of women in train service on its lines. The company says: "There has been considerable discussion as to the employment of women in train and car service, and other departments as well, if the need for help on the electric railways, street and inter-urban, becomes such as to make their employment imperative. It is possible that the draft needs of the country for army and other war purposes, will bring about a condition where women will have to take up the work ordinarily done by men. If such a condition should arise in Los Angeles the Pacific Electric will give preference in such employment first, to eligible members of families and dependent relatives of the men who have gone to the front, and, second, to family relatives of Pacific Electric employees in active service."

Skip Stop Proposed for Kansas City.—The special committee of the City Council of Kansas City, Mo., to which the skip-stop matter was recently referred, held a recent hearing on the subject at which P. J. Kealy, president of the Kansas City Railways, and Robert B. Woods, city member of the Board of Control, explained the reason for the plan and its advantages. The committee expressed itself in favor of a skip-stop plan, but some of the Aldermen requested protection as far as possible for merchants at the corners where the operation of the plan might reduce traffic. President Kealy said that skip-stop operation would save 15,000 to 18,000 tons of coal a year in Kansas City, and that when the matter finally came up in the form of an ordinance, the fuel administration would probably send a man to urge its adoption. The committee ordered the preparation of an ordinance for the introduction of the skip-stop plan.

Final Argument in Trenton Service Case on June 11.—The cross-examination of H. C. Eddy, chief traffic inspector of the Board of Public Utility Commissioners, and of F. T. Daly, an assistant inspector, was completed on May 27 in connection with the application of the city of Trenton for improved service by the Trenton & Mercer County Traction Corporation. It was agreed that the case should come up on final argument on June 11. George L. Record, special counsel for the city, said he wanted to argue the case orally and Frank S. Katzenbach, for the company,

said that if Mr. Record wanted an oral argument, his side was willing. One of the principal points brought out by the company was that the cost of trackage had increased 50 per cent over normal times. Another point was made by Mr. Katzenbach in having Mr. Eddy admit that from a financial angle this was not a very good time to make any radical changes.

Trenton Fare Case Opened.—In testimony before the Board of Public Utility Commissioners of New Jersey on June 3, on the application of the Trenton & Mercer County Traction Corporation for the abolition of six-for-a-quarter tickets and for a 6-cent fare, Rankin Johnson, president of the company, stated that if the increase was granted the company could provide for an increase in the wages of its employees amounting to \$20,000 a year and also for a \$500,000 expenditure for a plant addition as well as \$25,000 for increased depreciation fund. He was still on the stand when adjournment was taken until June 13. It was stated that two days, that day and the next, would be required to complete Mr. Johnson's testimony. A date will then be fixed for the cross-examination by Charles E. Bird, city counsel and George L. Record, special counsel, for the city, and by Martin P. Devlin, representing the labor unions. Frank S. Katzenbach and Edward M. Hunt, represent the company.

New York's Owls May Go.—On June 4 it was announced that John Candler Cobb, Boston, a director of the New York (N. Y.) Railways, had been appointed by the board to investigate and report on the amount and nature of the service which the company can and should give the public under existing conditions. Mr. Cobb said that while he was not prepared to state what the results of the work would be, he could say that his preliminary study indicated that a shutdown of night service would probably enable the company to solve the problem. He said that he wanted everyone engaged in any essential industry that would be seriously interfered with by stopping transportation between 10 p.m. and 6 a.m. to communicate with him at the office of the company. Members of the Public Service Commission commented sarcastically on the proposal to suspend night service by stating that New York was not Boston and that it was a twenty-four hour city. The suggestion of Mr. Cobb was quickly turned to their advantage by the daily newspaper columnists.

From Eight Zones to Seven Zones.—At its regular meeting on May 22 the Railroad Commission of South Carolina granted a postponement of the date upon which the change in passenger fares upon the Augusta-Aiken Railway will become effective. The date for the change from the 40-cent to the 35-cent rate was originally set for June 1. It was changed on May 22 to June 8, in order to comply with the laws requiring thirty days' notice for such

changes in rates. The commission has virtually agreed upon the new seven-zone system upon this road, which it is believed will remove all causes for complaint in regard to passenger fares. This move by the commission is undoubtedly made in accordance with its announced purpose to reserve to itself the right to rearrange the zones to meet the demands of travel as they showed themselves during the trial period of three months. The decision in this case was reviewed in the *ELECTRIC RAILWAY JOURNAL* of April 13, page 726. Eight 5-cent zones have been in effect.

Fare Increase in Oshkosh.—The Railroad Commission of Wisconsin has rendered its decision in the application of the Eastern Wisconsin Electric Company to shorten several of its routes in the city of Oshkosh, and to discontinue the sale of the eight-for-a-quarter workmen's tickets. The decision of the commission, while it authorized the elimination of the eight-for-a-quarter tickets, required the substitution of twenty-five tickets for \$1 or twelve tickets for 50 cents, to be good during a certain period in the morning and at night. The shortening of the routes was also authorized as a means of giving a more dependable service, and the application of the company for permission to adopt one-man operation in the city of Oshkosh was also granted. The company has made application to discontinue the operation of its local cars in the city of Neenah, Wis., and has also made application for authority to increase the railway fare between Fond du Lac and North Fond du Lac from 5 cents to 6 cents from 6 a.m. to 12 midnight and from 5 cents to 10 cents from 12 midnight to 6 a.m.

One-Man Cars and Charge for Transfers.—A petition has been filed with the State Public Utilities Commission by the Utah Light & Traction Company, Salt Lake City, Utah, for an order permitting it to use but one operator to perform the duties of motorman and conductor on a car outside of the congested district and to issue only limited or directional transfers, charging 1 cent apiece for them. In its petition the company sets forth that the order is necessary to reduce expenses to meet the new wage schedule of 40 cents an hour paid to employees. On Jan. 1 the company discontinued selling strip tickets at 4 cents each. This was on order of the commission. The city carried this case to the court. Only recently the Supreme Court upheld the commission order. Then came an increase in pay to the men as a result of arbitration, noted in the *ELECTRIC RAILWAY JOURNAL* of May 25, page 1023. This finding was not without its compensating feature for the company, however, as the board of arbitration urged upon the commission such action as would give prompt and speedy relief to the company through an increase of rates. June 11 has been set for a hearing on the application of the company to charge for transfers.

Personal Mention

J. L. Burkholder has been named general agent of the Illinois Traction System at Decatur, Ill.

F. H. Williams has succeeded H. C. Howard as publicity agent of the Winipeg (Man.) Electric Railway.

M. A. Tupton has been appointed superintendent of the Shore Line Electric Railway, Western division, which includes New London, Niantic, Chester, Old Saybrook to New Haven.

Harry Hoyt, acting superintendent of the Shore Line Electric Railway, Western division, will become superintendent of the Eastern division, embracing the lines in Norwich, Groton, Stonington, Watch Hill and Weekapaug with headquarters at Westerly.

M. H. Frank has been appointed manager of the Eastern Wisconsin Electric Company at Fond du Lac. Prior to this appointment Mr. Frank was operating engineer of the Galesburg Railway, Lighting & Power Company of Galesburg, Ill., and previous to that time was assistant engineer on the Indiana & Michigan Electric Company at South Bend, Ind.

C. E. Warwick, superintendent of the Vicksburg Light & Traction Company, Vicksburg, Miss., has been appointed railway superintendent of the Eastern Wisconsin Electric Company at Sheboygan, Wis., and has assumed his new duties. Mr. Warwick was connected with the Vicksburg property from August, 1914. Prior to that he was superintendent of the city division of the Fort Wayne & Northern Indiana Traction Company, Fort Wayne, Ind.

E. F. Greenleaf, of the Orleans-Kenner Traction Company, New Orleans, La., has been made general superintendent. Mr. Greenleaf moved to Louisiana twenty-five years ago and located in Gretna. He then joined the J. W. Thompson Sand & Gravel Company, working at Profit Island, and later went with the Midland Bridge Company and constructed many railroad bridges in the State. He started with the Orleans-Kenner line several years ago and was promoted from agent to general agent. He also was largely responsible for building up Felix Park, which is owned and operated by the company.

H. C. Young, who recently was appointed purchasing agent of the International Railway, Buffalo, N. Y., succeeding the late J. C. Sheldon, was by this appointment transferred from the department of bridges and buildings, of which he had been superintendent for five years. Previous to this he was for two years chief engineer of the track department and still earlier he spent four years in the engineering department of the Chicago City Railway. Mr. Young entered the electric railway business from the steam railroad field

in which he was engaged on engineering work for about six years. His technical work involved a great deal of contact with the problems connected with the purchase of materials and equipment, and thus furnished admirable training for the varied duties of the purchasing agent of a large railway system.

C. E. Fahrney, newly-elected president of the Iowa Electric Railway Association, has been connected with the railway property at Ottumwa, Iowa, now operated by the Ottumwa Railway & Light Company, for the past twenty-three years, during which time the company has been reorganized and has changed hands several times. Upon graduation from the local high school, he entered the employ of the Ottumwa



C. E. FAHRNEY

Electric Railway as storekeeper in 1895. In 1896 this company was placed in the hands of a receiver and he was transferred to the office force, becoming superintendent of transportation in 1896. In 1905 the property was taken under the management of H. M. Byllesby & Company. Mr. Fahrney was made general manager in 1911, which position he still holds. Mr. Fahrney has been vice-president of the Iowa Electric Railway Association for the last two years.

Obituary

W. H. Carnahan, assistant treasurer of the Illinois Traction System, died at his home in Champaign, Ill., on May 17 last. Mr. Carnahan was born in Cincinnati, Ohio, on Sept. 27, 1853, and resided there until 1872, when he removed to Kansas City, Mo. Later he moved to Monticello, Ill. In 1880 he

became associated with the firm of J. B. & W. B. McKinley, dealing in Western land, and for several years was located in the State of Nebraska. When W. B. McKinley launched his public utility plans in Illinois which resulted in the organization of the electric railways in that State into the system known as the McKinley lines, Mr. Carnahan returned to Champaign, Ill., and associated himself with the Illinois Traction System as assistant treasurer. This position he held up to the time of his death. He is survived by the widow and seven children.

D. Hayward Ackerson, manager of sales of the Cincinnati Car Company, Cincinnati, Ohio, until January, 1918, when he was commissioned a first lieutenant in the Ordnance Department, died recently following an operation for appendicitis. Mr. Ackerson started to work for the company in the summer of 1905 as an apprentice in the shops, returning in the fall to school. He followed this arrangement until 1909, when he was graduated from the University of Cincinnati. He then entered the car wiring department of the Cincinnati Traction Company. Later he became a draftsman in the office of the master mechanic. In the spring of 1910 Mr. Ackerson entered the service of the Westinghouse Electric & Manufacturing Company, but on May 1, 1914, he resigned from that company to become manager of sales with the Cincinnati Car Company. Mr. Ackerson was only twenty-nine years old.

Capt. Harry A. Bullock, secretary of the New York Municipal Railway Corporation, head of many committees of the Brooklyn (N. Y.) Rapid Transit Company organization, and more recently assistant divisional quartermaster with the United States Army in France, was killed by an aerial bomb on Decoration Day while on duty at division headquarters about 5 miles back from the first line trenches where, on a certain sector, American troops were standing off the German offensive. Capt. Bullock was born in Northampton, Mass., thirty-nine years ago. He was graduated from Amherst College in 1899. He entered the newspaper business shortly afterward, and after working for several years as a reporter on New Haven and Boston newspapers came to New York to join the staff of the *New York Times*. In addition to being secretary of the New York Municipal Railway Corporation, Captain Bullock was in charge of all of the welfare activities of the Brooklyn Rapid Transit Company, and he brought to his tasks not only great talent as an organizer and as a thorough and capable investigator, but great enthusiasm and energy. Before the country became involved in the war he felt that it was his duty to become prepared for assisting it in case of necessity, and took the preliminary training at Plattsburg. Mr. Bullock was a member of the committee on education of the American Electric Railway Association.

Construction News

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

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

Recent Incorporation

***Mount Vernon & Camp Humphries Railway, Mount Vernon, Va.**—Incorporated to construct a line from Mount Vernon to Camp Humphries. Capital stock, \$50,000. Officers: James R. Caton, president, and John G. Graham, secretary and treasurer, both of Alexandria, Va.

Franchises

Erie, Pa.—A temporary certificate of public convenience has been issued by the Public Service Commission granting the Buffalo & Lake Erie Traction Company permission to construct a loop around East Perry Square, to remain during the period of the war and for six months after its conclusion.

Track and Roadway

Anniston, Ala.—A corporation has been organized with capital stock of \$200,000 to construct an electric railway from Anniston to Camp McClellan. The following were elected officers of the company: W. H. McKleroy, president; Dr. J. L. Wikle, vice-president, W. H. Weatherly, treasurer, and L. L. Crump, secretary. As soon as the War Department grants permission to enter the reservation, work on the line is expected to begin. James Mitchell, president of the Alabama Power Company, announced that he would take \$50,000 of the stock for his company and offered the use of the company's Noble, Tenth, Moore and Thirteenth Street loops to the new car line. [May 25, 1918.]

Pacific Electric Railway, Los Angeles, Cal.—Work will soon be begun by the Pacific Electric Railway on the reconstruction of its tracks on Franklin Avenue, Hollywood.

Evansville, Ind.—The Public Utilities Company has received permission from the Board of Public Works to extend its Fulton Avenue line from Gavitt Street to a point 150 ft. north of Twenty-eighth Street, where the company will establish a loop in place of the one now on Gavitt Street.

International Railway, Buffalo, N. Y.—Plans are being made by the International Railway for the construction of 8.7 miles of new track in Buffalo this year, to cost approximately \$870,000.

Toronto (Ont.) Civic Railway.—Work of laying rails on the Bloor Street viaduct will be proceeded with at once, according to a decision recently reached by the Ontario Railway & Municipal Board. Girder rails now on hand are to be used for this purpose and T-rails will be used temporarily to complete the work. Meanwhile the Pape Avenue line of the Toronto Railway will have to remain undone until more rails are secured.

Sandwich, Windsor & Amherstburg Railway, Windsor, Ont.—This company contemplates the construction of a loop on Ferry Avenue and the construction of double tracks on London Street and Ouellette Avenue. The company will also install double curves at the intersection of Ouellette Avenue and Sandwich Street.

Hull (Que.) Electric Company.—The Hull Electric Company will construct an extension to its lines.

Levis County Railway, Levis, Que.—This company reports that it plans to reconstruct its track and ballast the roadbed at a cost of approximately \$100,000.

Dallas (Tex.) Railway.—The work of placing new curves and double tracking the electric railway lines at Commerce and Lamar Streets by the Dallas Railway has been finished and as soon as new schedules are arranged and approved by M. N. Baker, Supervisor of Public Utilities, the Oak Cliff cars will be routed as crosstown lines. The cars will cross from Commerce to Elm on Lamar, and will then be routed out Elm Street and Bryan to Munger Place. The City Commission of Dallas, Tex., has awarded the contract for paving of Jefferson Street from Commerce to Young Streets and has issued an order to the company to pave the portion of the street under and between its tracks. The company's share will amount to about \$2,663.

Wheeling (W. Va.) Traction Company.—Work has been begun by the Wheeling Traction Company on the rehabilitation of its lines.

Shops and Buildings

Pacific Electric Railway, Los Angeles, Cal.—Contracts have been awarded by the Pacific Electric Railway to the Wurster Construction Company, Los Angeles, for the construction of its new shops at Torrance, as follows: Car works, 180 ft. x 400 ft.; heavy machine shop, 180 ft. x 450 ft.; forge shop, 150 ft. x 200 ft.; erecting shops, 180 ft. x 450 ft.; paint shop, 180 ft. x 450 ft.; power plant, about 60 ft. x 120 ft., and other structures. The cost of the entire work is estimated at \$1,000,000.

Interborough Rapid Transit Company, New York, N. Y.—A new station is being built by the Interborough Rapid Transit Company at 162d Street and Anderson Avenue, The Bronx. The station will consist of a two-story building about 75 ft. x 80 ft., the large central portion being devoted to station purposes, on each side of which will be a good-sized store, capable of being divided into two smaller stores. The building will be fireproof throughout, with ornamental front in harmony with the neighboring buildings.

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

Texas Electric Railway, Dallas, Tex.—A new passenger station and car repair shop will be built by the Texas Electric Railway at Denison, to cost about \$10,000.

Power Houses and Substations

Pacific Electric Railway, Los Angeles, Cal.—Plans have been prepared by the Pacific Electric Railway for building a one-story brick substation, about 32 ft. x 50 ft., at Slauson Junction, Slauson and Long Beach Avenues.

Potomac Electric Power Company, Washington, D. C.—Owing to the erection of many additional government buildings in Washington and the establishment around that city of many camps and cantonments, the Potomac Electric Power Company, which is controlled by the Washington Railway & Electric Company, has made a number of extensions to its power system. At the station it installed a 15,000-kw. unit in January, 1917, and has placed an order for another of the same size which is promised for delivery Jan. 5, 1918, and is negotiating for a third generator of the same size. Boiler equipment for this additional power is also being installed. Additional substation equipment has also been purchased, and the company is negotiating with the government to supply steam heat for new buildings near its station.

Manila Electric Railway & Light Company, Manila, P. I.—A report from the Manila Electric Railway & Light Company states that the company plans to construct an extension to its present power plant. The company has recently purchased one 5000-kw. turbine and 10,000 sq.ft. condenser, one 1000-kw. rotary, one 100-kw. M. G. exciter, switchboard, etc., from the Westinghouse Electric & Manufacturing Company and six 6-retort Taylor stokers. The company will soon purchase an economizer and induced-draft fans.

Puget Sound Traction, Light & Power Company, Seattle, Wash.—Work will be begun at once by Stone & Webster on the construction of a concrete power station at 6500 Fourteenth Avenue South, Seattle, to cost about \$30,000.

Manufactures and the Markets

DISCUSSIONS OF MARKET AND TRADE CONDITIONS

FOR THE MANUFACTURER, SALESMAN AND PURCHASING AGENT

ROLLING STOCK PURCHASES • MARKET QUOTATIONS • BUSINESS ANNOUNCEMENTS

Standardizing Catalogs Along Practical Lines

Conference in Chicago Recommends Regular Page Sizes, Weights and Colors of Paper

Following the appointment of a committee on the standardization of catalogs of the National Association of Purchasing Agents, by E. L. McGrew, purchasing agent of the Standard Underground Cable Company of Pittsburgh, Pa., much correspondence was carried on with all the associations in the various lines of catalog preparation and distribution. As a result a conference was held by the committee at the Hotel La Salle, Chicago, Ill., on May 22. Representatives from a number of organizations interested, including the American Institute of Architects, American Association of Heating & Ventilating Engineers, American Association of Mechanical Engineers, National Gas Engine Association, Steel Furniture Manufacturers' Association, American Supply & Machinery Manufacturers, Electrical Manufacturers' Council, catalog manufacturers, representatives from firms engaged in industrial lines using catalogs for the dissemination of information relative to their products, as well as from the National Association of Purchasing Agents.

After addresses were delivered by representatives from all the organizations, some of which had already adopted a standard size or sizes of catalogs, used by their own trades, the conference adopted resolutions in effect as follows: three sizes of catalog pages, namely—6 in. x 9 in., 7½ in. x 10½ in. and 8 in. x 11 in. Sizes of book papers—25 in. x 38 in., 32 in. x 44 in. and 33 in. x 46 in. Standard weights of book papers, based on the 25-in. x 38-in. size—40 lb., 45 lb., 50 lb., 60 lb., 70 lb., and 80 lb. Colors of paper—white and natural.

During the evening the standardization of catalogs committee of the National Association of Purchasing Agents held its session, at which it adopted as the standard size for catalogs which will be furnished to purchasing agents, pages measuring 7½ in. x 10½ in. These dimensions are of the oblong proportions, which will cut with least waste from the standard 32-in. x 44-in. sheet of paper.

The purchasing agents have, therefore, adopted one standard size of catalog, which is of such proportions that in case it might be found desirable to furnish smaller editions to other trades they could be reproduced from the original wash drawings instead of requiring new ones to be made.

Catalogs are designed to sell goods,

it was declared, but are now seldom used for that purpose, on account of their inaccessibility. Therefore the purchasing agents are preparing to issue posters which will advertise the fact that they are backing as a unit the 7½-in. x 10½-in. page size, bound in sectional form; and are urging the co-operation of all manufacturers in bringing about this standardization.

Future of Steel Extremely Uncertain

New Freight Rates Likely to Increase Prices—Supply Difficult to Estimate

With the government now taking over 100 per cent of the steel output, and normally at least 80 per cent, manufacturers of electric railway equipment and supplies view the future with considerable apprehension. It is known that a number of firms, anticipating their wants, have at least a year's stock of sheet steel. While congratulating themselves on being so fortunate, they say a year, at the best, is only a short time. Before its expiration further requirements must be provided.

The acuteness of the steel supply is further emphasized by a notice to the mills on Monday from the War Industries Board. The board requests manufacturers to furnish the names of all customers, the orders they seek to place, the orders accepted by the companies, and the commodities for which the steel is to be used. Previously the board required a record of all orders taken and shipments made, but the names of individual buyers were not asked. It is further expected that a stricter application of priority rules, to an extent which will mean that all the steel and iron produced by the plants will be at the direction of the government. In fact, on Thursday the government assumes absolute control of the distribution of all manufactured steel products and pig iron.

Another disturbing factor is new freight rates, an advance of 25 per cent, which goes into effect on June 25. This increase will be used by iron and steel makers as an argument that the War Industries Board should not reduce the price of their products for the period after June 30, when the present schedule expires by limitation. On finished goods sold to commercial users the buyer will pay the increased rates. This, of course, swells the costs of the manufacturers of the long list of traction road and power house equipment and accessories. It is this phase of the question which is causing the most concern.

Higher Prices Put on Power Plant Apparatus

Motors, Switchboards, Turbines, Transformers and Generators Are Marked Up 10 Per Cent

Within the past ten days numerous announcements of advances in power-plant equipment have come out from the manufacturers. A general advance of 10 per cent on motors was made in the neighborhood of June 1. One of the leading manufacturing concerns sent the following notice to its agents:

"Effective Saturday noon, May 18, advance net selling price 10 per cent on all lines covered by apparatus, switchboard, turbine and motor price book sheets dated prior to May 16, pending receipt of revised price sheets or discounts."

Another company of prominence made the switchboard advance about the middle of May; but on motors of all sizes, alternating and direct current; transformers, generators and motor-generator sets its new prices went into effect on June 3. Transformers, electric locomotives and some other specialties were made exceptions under the new ruling by the first-named concern.

It is held by the various manufacturers that a steady advance in the cost of material has rendered the increase in finished goods imperative. Further, it is also the opinion of several large producers who adjust their operations strictly on market and general conditions that a mark-up in a couple of months on all lines of electrical supplies should be no cause for special astonishment. The manufacturing situation, for obvious reasons, has been getting more acute within the last few months. It is safe to say, according to authorized statements, that with the still further anticipated scarcity and difficulty of obtaining material, shortage of skilled labor and other drastic contingencies, conditions are speculative and far from stable or certain. Therefore it is hard to tell what may occur.

With possibly one exception, the manufacturers have a standing rule of "price subject to change without notice," applicable to current buying and ordering. This concern stipulates that a leeway of fifteen days be allowed on all acceptance orders. That is to say, when a quotation is submitted the clause provides that it is good for the period designated, no matter if another price be announced in the meantime. For a while this clause was more or less loosely construed, but recently the trade was notified that it would be strictly enforced.

Government Orders Freight Bills Paid in Cash

Regulation Effective July 1—Credit Accommodations Canceled—Modification Sought by Large Shippers

In general order No. 25 the Director General of Railroads places the collections of freight charges practically on a cash basis. The essential parts of the order follow:

Effective July 1, 1918, the collection of transportation charges, by carriers under federal control, for services rendered, shall be on a cash basis, and effective as of that date; credit accommodations then in existence which may be in conflict with the following regulations shall be canceled.

In cases where the enforcement of this rule with respect to freight will retard prompt forwarding or delivery of the freight or the prompt release of equipment or station facilities, carriers will be permitted to extend credit for a period of not exceeding forty-eight hours after receipt for shipment of a consignment if it be prepaid, or after delivery at destination if it be a collect consignment; provided the consignor, if it be prepaid consignment, or the consignee, if it be collect, file a surety bond either individual or corporate, in an amount satisfactory to the treasurer of the carrier. The form of such bond shall be prescribed by the chief legal office of the individual carrier, conditioned upon and providing for payment of all charges within forty-eight hours after forwarding or delivery of the freight. Upon receipt and acceptance of such bond a carrier may accept and forward prepaid consignments or may deliver collect consignments in advance of payment of all charges thereon to the amount covered by the bond. Failure to pay such charges within the time prescribed will automatically cancel such credit.

Freight consigned to order or to "order notify" shall be delivered only upon surrender to the agent of the carrier of the original bills of lading for such freight, and the payment of the freight charges thereon as herein provided. Provided, however, if such bill of lading be lost or delayed the freight may be delivered in advance of surrender of the bill of lading upon receipt by the carrier's agent of a certified check for an amount equal to 110 per cent of the invoice, or upon receipt of a surety bond either individual or corporate, acceptable to the treasurer of the carrier in an amount for twice the amount of invoice.

A representative committee of traffic managers of large shipping interests in the important industrial centers was in conference with the Railroad Commission in Washington last week with a view to securing a modification of the order. The shippers contended a reasonable time should be allowed for checking and auditing freight bills as to their correctness.

Atlantic Welding Reorganization and Change of Name

Interests controlling the Lincoln Bonding Company of Cleveland have acquired the controlling interest of the Atlantic Welding Company of New York, which company possesses valuable welding and rail-joint patents, including the basic Gailor patents covering the joint structures familiarly known among railway companies.

A contract has been entered into with the Lincoln Bonding Company, which has always manufactured the generators for the Atlantic Welding Company and has always had the same agents as the Atlantic Company, whereby the entire promotion of sales including the soliciting of new royalty contracts and maintenance of all pres-

ent contracts, will be handled exclusively by the Lincoln Bonding Company.

In order to more closely associate the work of the two companies, the name of the Atlantic Welding Company has been changed to the Lincoln Rail Welding Company. For similar reasons, and to insure better service to the welding company's customers, the manufacturing facilities of the Atlantic Welding Company will be consolidated with those of the Lincoln Bonding Company at Cleveland, and all products will be marketed under the name of the Cleveland company. The New York office will be maintained, but only as a district office.

As the two companies have always had the same agents in the various territories no effect will be noticed by the customers of either company.

Priority of Orders in Allocation of Steel

How Electric Railway Equipment Manufacturers Must Make Application for Requirements

The market situation of iron and steel, and why manufacturers of electric railway cars, general equipment and accessories are speculating on their future supply, are of more than passing importance. Among other matters relating to this much discussed subject is the allotment or allocation of steel and steel products after the requirements of the government and its war allies are filled. The plan is still under discussion by the War Industries Board; but the appended notification, recently furnished by the Priorities Committee, describes what applications—which must be made out on an official form supplied—will be considered and how certificates will be granted:

"Allocation of steel is undertaken by the director of steel supply only with reference to orders placed directly by the government. As to orders not placed directly by the government, when a concern desires steel and cannot place its orders without first receiving a priority certificate a certificate may, on proper showing, be granted. Before making an application the applicant must determine whether the steel company will accept the order if priority is granted, inasmuch as the certificate is not designed to compel the steel company to accept the order. In other words, the concern desiring steel should go to its regular source of supply and place its order, subject to the obtaining of priority. If the steel company signifies its willingness to accept the order, if priority is granted, then an application covering the tentative order may be made and will be considered by this committee. Of course, if an order has actually been accepted, priority may be granted thereon, the rating in each case being entirely dependent on the actual need of the steel covered for war work or other work of exceptional importance.

"Save in very exceptional cases, no

priority is granted for the replacement or maintenance of stock. Where, however, it is clearly shown that an urgent need exists for the maintenance of the particular stock for use in war work or other work of exceptional importance, priority is sometimes granted. An affidavit and personal guaranty that the material will be used solely for such purposes must be incorporated in the application, and the precise intended use of the materials required must be stated in detail. The application must cover specific orders, as a blanket certificate will not be issued."

Rolling Stock

Boston (Mass.) Elevated Railway has been authorized by the Public Service Commission to purchase 200 center-entrance cars and 100 trailers, referred to last week and in previous numbers of the ELECTRIC RAILWAY JOURNAL. The center-entrance or motor cars are to cost approximately \$12,000 and the trailers \$5,000 each. It is reported the cars will not be delivered for several months, owing to the heavy demands on the car manufacturing companies.

North Coast Power Company, Vancouver, Wash., is reported as having bought one new one-man car, of the latest type, from the American Car Company, St. Louis, Mo. It is now in service on the Orchard-Sifton line.

Brooklyn (N. Y.) Rapid Transit Company in placing its order for fifty center-entrance trail cars, referred to in the ELECTRIC RAILWAY JOURNAL of May 11, with the Jewett Car Company, Newark, Ohio, supplies the following specifications:

Number of cars ordered.....	50
Name of road.....	Brooklyn Rapid Transit Co.
Date order was placed.....	May 11, 1918
Builder of car body.....	Jewett Car Co.
Type of car.....	Trailer, semi-convertible, center-entrance, surface passenger
Seating capacity.....	61
Weight (total).....	Approximately 28,000 lb.
Bolster centers, length.....	24 ft. 8 in.
Length over bumpers.....	45 ft. 6 in.
Width over all.....	8 ft. 6 in.
Height, rail to roof.....	11 ft. 3 in.
Body.....	Semi-steel
Interior trim.....	Wood and metal
Headlining.....	Agasote
Roof, arch or monitor.....	Monitor
Air brakes.....	Westinghouse
Axles.....	Carnegie
Couplers.....	Westinghouse
Curtain fixtures.....	Curtain Supply Co.
Curtain material.....	Pantasote
Designation signs.....	Electric Service Supplies Co.
Door operating mechanism.....	Consolidated Car Heating Co.
Fare boxes.....	Vogelsong
Fenders or wheelguards.....	H-B wheelguards
Hand brakes.....	Peacock improved
Heaters.....	Gold Car Heating Co.
Headlights.....	Dayton No. 1583
Journal boxes.....	Brill
Registers.....	International
Sash fixtures.....	Edwards
Seats, style.....	H. B. & W. reversible cross and longitudinal
Seating material.....	Wood
Trucks, type.....	Brill trailer trucks
Ventilators.....	Monitor deck type
Wheels (type and size).....	22-in.

Seattle (Wash.) Municipal Street Railway, by an ordinance recently introduced in the City Council is authorized, through the Board of Public Works,

to prepare specifications and advertise for bids for the purchase of six one-man single-truck cars and twenty double-truck cars, for the equipment of the Municipal Elevated Railway now under construction. A bill was also passed providing for the improvement of the Loyal division of the Municipal Railway at a cost of not more than \$2500.

Perley A. Thomas Car Works, High Point, N. C., will be the builder of the four steel cars for the Southern Public Utilities Company, mentioned in this department two weeks ago, and not the Southern Car Company. The Perley Thomas company has succeeded to the business and plant of the Southern Car Company.

General Electric Company, Schenectady, N. Y., has received a contract from the city of San Francisco for six 4-ton storage-battery locomotives which will be used in the tunnels being driven on the Hetch Hetchy water supply project. One of these locomotives will be operated in each of six portals, and a charging station will be installed at each of these portals. The contract price was \$6,527 each, or a total of \$39,162.

Trade Notes

John F. Godfrey, manufacturer of coal handling conveyors, has moved his plant from Elkhart, Ind., to Chicago, Ill.

Moloney Electric Company, St. Louis, Mo., announces that J. Van Buskirk,

formerly associated with the Mineralac Company, Chicago, Ill., has just been appointed manager of the Chicago office.

General Electrical Company, Chicago, Ill., has lately opened a large branch with offices and a traveling force in Memphis, Tenn., in the Lotus Building, Jefferson Avenue, near Second Street, where the entire first floor is occupied.

George L. Kippenberger, formerly special sales agent of the St. Louis Car Company, has been appointed assistant to the vice-president. Among other numerous duties, he will give particular attention to the direction of all production activities.

Charles A. McCune has resigned his position as chief engineer of the Commercial Acetylene Company, to become sales engineer with the Page Steel & Wire Company, New York, where his efforts will be devoted to sales and service in connection with Armeo welding rods.

McGuire-Cummings Manufacturing Company, Chicago, Ill., announce that William T. Twomey has been elected vice-president of that company. Mr. Twomey is well known in the electric railway field, having been connected with the Cummings interests for several years.

Horne Manufacturing Company, New York, supplied the staffless brakes on the thirty-two new cars of the Richmond Light & Railroad Company, one of which was illustrated and described in the last issue of this paper. The name of another manufacturer was mentioned in the article.

Jeffrey-Dewitt Insulator Company, the new corporate name of what was formerly the Jeffrey-Dewitt Company, manufacturer of the J-D high-tension suspension insulator, will be operating its new plant at Kenova, W. Va., on June 1. Its offices will be in the first National Bank Building, Huntington, W. Va.

New Advertising Literature

Autoscope Products Corporation, New York, N. Y.: Circular describing the Cruban solderless wire terminal.

General Electric Company, Schenectady, N. Y.: Bulletin No. 46,018A, describing and illustrating its type P-8 voltmeter, wattmeter and ammeter.

Laclede-Christy Clay Products Company, St. Louis, Mo.: Illustrated catalog, entitled "The Stoker for the Higher Volatile Coal," describing in detail the company's chain grate stoker.

Combustion Engineering Company, New York, N. Y.: Bulletin C1, describing its Coxe stokers. This booklet is profusely illustrated with actual installations and shows diagrams of several different kinds of boiler settings.

James G. Biddle, Philadelphia, Pa.: Engineering instruments are described in a bulletin that is now being distributed. Some of the instruments are meggers for testing electrical resistance of conductors or insulations, hand tachometers, vibrating reed tachometers, reed frequency meters, portable switchboard instruments and rheostats.

NEW YORK METAL MARKET PRICES

	May 29	June 5
Copper, ingots, cents per lb	23½	23½
Copper wire base, cents per lb	26½ to 26¾	26½ to 26¾
Lead, cents per lb	7 65	7 25
Nickel, cents per lb	40	40
Spelter, cents per lb	7½	7½
Tin, Chinese,* cents per lb	\$1.00	.90
Aluminum, 98 to 99 per cent., cents per lb	†32.10	†33.00

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

OLD METAL PRICES—NEW YORK

	May 29	June 5
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	*12	5½
Steel car axles, Chicago, per net ton	\$41.52	\$41.52
Old carwheels, Chicago, per gross ton	\$29.00	\$29.00
Steel rails (serap), Chicago, per gross ton	\$34.00	\$34.00
Steel rails (relaying), Chicago, gross ton	\$50.00	\$60.00
Machine shop turnings, Chicago, net ton	\$16.00	\$16.00

ELECTRIC RAILWAY MATERIAL PRICES

	May 29	June 5
Rubber-covered wire base, New York, cents per lb	27 to 34	27 to 34
Weatherproof wire (100 lb. lots), cents per lb., New York	30½ to 36.10	30½ to 30.40
Weatherproof wire (100 lb. lots), cents per lb., Chicago	38.00 to 38.35	35.43 to 38.00
T-rails (A. S. C. E. standard), per gross ton	\$70.00 to \$80.00	\$70.00 to \$80.00
T-rails (A. S. C. E. standard), 100 to 500-ton lots, per gross ton	\$67.50	\$67.50
T-rails (A. S. C. E. Standard) 500-ton lots, per gross ton		\$62.50
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 29	June 5
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...	82 & 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	\$42.00	\$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	\$1.59	\$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	10	10½
Turpentine (bbl. lots), New York, cents per gal	53	52½

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