

Electric Railway Journal

Consolidation of STREET RAILWAY JOURNAL and ELECTRIC RAILWAY REVIEW

Volume 51

New York, Saturday, January 19, 1918

Number 3

The Electric Railway Industry Needs Greater Coherence

IT WAS Benjamin Franklin who during our struggle for independence made the famous remark about hanging together or hanging separately. The same remark applies to-day to the electric railways, and unfortunately some are already beginning to "hang separately." The war is acting as a tremendous force in lining up all industries to make them exert their maximum effort to bring it to a successful issue. Unless an industry can demonstrate that it is directly or indirectly essential to this end it will fare ill at the hands of the public until the war is won. The war then forces the electric railways with other industries to pull together, first to demonstrate to the government their essential character, and second to enable them to give a service commensurate with the needs of the hour. An intelligent fear of what will happen if the war be not won is an influence for unity throughout the whole country which must prove overwhelming.

But electric railways have more than the war to influence them. They must unite to impress the public with the necessity for increased income and to learn how to give a twentieth century transportation service. Organically this is not an easy thing to do, for the reason that the industry is made up of many individual units which have little in common. They are individually strong on what are termed "local conditions," which make it seemingly difficult for one company to co-operate with others. But through organization local conditions can be overcome.

The first step is to use more effectively the organizations already available in the national and sectional associations. The second is to supplement these, if they are not adequate for the work. The third is for each company to feel a responsibility not only for its own welfare but for that of other railway properties. There are unlimited opportunities for good if the energies of all branches of the industry—operating, manufacturing and financial—are united.

Reduced Schedule Speeds in Detroit

THE chart which we printed in our news columns last week, showing a constantly decreasing schedule speed for cars in Detroit since 1910, discloses a condition which is very serious, if it is at all general. According to this chart, the average schedule speed of the Detroit cars has decreased during the last seven years from 9.6 m.p.h. to 8.5 m.p.h. The fact that the managers of the Detroit Railway published this chart in their company publication shows that they realize the situation and are doing their best to correct it. We recommended that other companies make a similar record to determine whether the average schedule speed of their cars is also falling, and if so to take immediate action toward a change.

A lower schedule speed means less attractive service, larger investment in equipment and higher operating costs. Thus it is objectionable to both the patron and the company. In thinking of schedule speed, one should keep clearly in mind that it does not vary with maximum speed. Indeed, it is often possible to increase schedule speed and decrease maximum speed. Schedule speed is largely under the control of the authorities and the management, but maximum speed is largely a question of the freedom of the streets from vehicles.

There is no doubt that present-day urban conditions

tend to reduce the schedule speed of cars unless heroic efforts are made to overcome this tendency. There is increasing interference from vehicular traffic and foot passengers, caused by the greater volume of traffic on the street, and these necessitate non-passenger stops and slowdowns for the cars, which are exasperating and expensive. But if vehicular and foot-passenger congestion on the street is a necessary accompaniment of the growth and business activities of a city, one may naturally ask what can the railway do? The answer is this: Educate the public and the authorities to two facts.

The first of these is that high schedule speed is not only the foundation of good service, but it is also the

Uncle Sam Must Have

MACHINE TOOLS

The federal government faces a momentous contingency in regard to the manufacture of heavy field artillery. Big guns must be had, in large numbers and promptly. But it takes time and tools to make them with. The government is short of both and machine-tool makers cannot supply the tools in time to prevent heavy slaughter of our men in the campaigns of 1918. The tools must be taken from the shops where they are not in use directly or indirectly on work necessary in the winning of the war. Electric railway operators and manufacturers of supplies can do something to help in this emergency. Some suggestions are given on page 137. Read these, if you skip everything else in this issue.

foundation of economical service, and if a company can operate economically it can introduce improvements which it otherwise could not supply. The second is that the railway cars should not be held down as regards schedule speed and even maximum speed of cars in streets to the standards of thirty years ago, because the standards of speed as well as of service have changed during that time.

If these facts are understood, the railway company should get the co-operation which it needs from both the authorities and the general public for introducing longer spacing between stops, rerouting reforms for its own cars and even restrictions on the use of certain streets by vehicles, all in the interest of higher schedule speed and better electric railway service.

Public Speed Standards

Have Changed in Thirty Years

IT is a noticeable fact that each advance in the art of urban transportation has been accompanied by an increase in speed. In its early days the horse car itself made better time than the rumbling, creeping bus, in part probably because of its higher rate of acceleration and because the cars were lower and easier of access. Hence the time of passenger interchange was less. Then the horse car was succeeded by the electric car, which although first built on the model of its predecessor was faster because of a higher accelerating rate and higher maximum speed. Later improvements in car body design and equipment still further greatly reduced the time of passenger interchange as well as increased the rates of acceleration and braking, although these improvements have been counterbalanced, at least in part in many cities by a reduction in schedule speed from street congestion and other causes. This brings us to the present day.

Under existing urban conditions even the fastest electric railway car seems slow in comparison with the automobile. It is this latter vehicle which now sets the pace on the streets, and this pace is a fast one. The electric car must compete with it in schedule speed, if it is to do its full duty to its patrons. The average rider will forget all considerations of safety and comfort as well as of justice to vested interests if only he can reach his destination more quickly. Sentiment cuts no figure with him. Just as the electric railway manager uses an automobile in reaching various points on his company's system because he saves time thereby, so his patrons will desert him if they can find service more attractive than his own. Comparatively speaking, 30 m.p.h. for street vehicles to-day is as slow as the 10 m.p.h. of thirty years ago. Hence the best present attainable speed of the electric surface car frets the restless rider.

This paper has consistently advocated every plan of railway transportation which contained possibilities of speed. Large parts of whole issues have been given up to them. We have, however, no generally applicable formula for obtaining higher schedule speed. Skip stops, stagger stops, short stops, more power per unit of weight (provided safety is duly considered), better car operation, both by motorman and conductor, etc., are all good. The main thing is to speed up, remembering that the speed quality of service is judged by the speediest available competitive facilities.

Constitutional Barrier Is

Bugaboo of Commission Imagination

THIS not a comedy of errors, for to the company the situation is tragic. The New York & North Shore Traction Company, financed under commission supervision and economically managed, is in financial need. Its franchises stipulate a 5-cent fare, but a high court, whose decision has not been reversed, lately held that this restriction could not estop commissions from granting just and reasonable rates to this company. Accordingly the Second District Commission in Albany unanimously increased the rates of the company for part of its line, but the First District Commission in New York City, in whose jurisdiction the rest of the company's system lies, now unanimously refuses to grant the relief which it admits is needed. The court, it intimates, didn't know the law.

Wherein do the two commissions differ? The Albany body, as it ruled in detail last November in the Huntington Railroad case, believes that franchises cannot be allowed to interfere with the exercise of the sovereign police power of the State, which covers rate-making. The Metropolitan Commission asserts that local authorities have a constitutional right to insert unalterable maximum fare clauses in franchises as a condition to their consent to operation. The two decisions are diametrically opposed, and nothing less than a proper interpretation of the Constitution is the issue.

The New York State Constitution undeniably requires the consent of local authorities to electric railway operation. But does that mean that a municipality can impose any condition it thinks proper? There should be no pussy-footing about this point. Either the local authorities are absolute sovereigns in granting consents, or they are subject to certain restrictions. If, as Commissioner Whitney alleges, a municipality is a completely independent power in dealing with the authorization of new utilities, rates are not the only point subject to sovereign whims. What of service, of facilities, of a prohibition of any control whatsoever by a State regulatory body—in other words, of unrestricted home rule? Manifestly the Constitution never contemplated this. Mr. Whitney's argument, completed, is a fine example of *reductio ad absurdum*.

The unescapable fact is this—that local authorities are not absolutely free in granting consents to utilities. The Constitution does not even by implication prescribe the terms of consent. The best proof of this is the fact that, before the regulatory system was put in operation, proper terms of consent were outlined in statutory law, such as the Railroad Law and city charters. Now the provisions of such laws in regard to rates have been superseded by the Public Service Commission Law, and this should be followed. In other words, the constitutional "consent" clause, not explicitly drawn in early years of regulation, has from time to time been interpreted by statutory law in accord with modern thought and experience. What the New York City Commission asks for is an obsolete interpretation.

But is this commission quite clear itself as to rate-making fundamentals? If Commissioner Whitney believes that the State has no paramount rate-making power when municipalities care to fix maximum fares in consents, his statement about the rate of fare is ridiculous: "Neither [the Legislature or the city]

could advance it above a maximum fixed by the other." Thus, if the Legislature should revert to rate-fixing and prescribe a 5-cent maximum, no fair-minded city authorities could consent to a new utility beginning operation at a higher rate. Can a municipality's will in rate-making then be considered supreme? No, its consent must be given with recognition of the rate-making power of the Legislature under the police powers authorized by the Constitution.

This is the view taken by the Albany Commission, and it is the sane one. The New York City Commission has simply gathered a mass of technical and legal subtleties—most of them originating in days of undeveloped regulation—and by means of hard constructions and strained inferences accomplished what has been called the "torture of laws." The Constitution protects the State rate-making power, just as it does municipal consent. The Metropolitan Commission would read into the latter provisions which would destroy the first. Why this favoritism?

New York City Commission Gives Companies Little Chance

THE constitutional obstacle which the New York City Commission finds will prevent the grant of a reasonable fare to the North Shore Company seems a false creation of the imagination. But suppose that the commission, unlike its broader-minded and more constructive companion commission in Albany, is afraid to proceed without reassurance from the court of last resort. This is no reason why the company should be penalized and even allowed to go to ruin in the meantime. The only fair procedure would have been to grant relief with provision for restitution if later required.

But the means of relief suggested in the decision are more to be criticised. Here is the situation. Instead of granting the needed revenues the commission suggests three possible remedies. First, the company might ask the city for a release from the franchise fare limit. This is a touch of sardonic humor, in view of the fight made by the city against the company at the hearings. Second, the company might ask the city for release from certain franchise payments. These obligations, let it be explained, are a part of the municipal consent which the commission deems supreme under the protection of constitutional law.

Or, third—and here is the climax of the scheme—the city might municipalize the property. Commissioner Whitney scrupulously avoids saying that municipal ownership should be sought, but to anyone reading between the lines the decision seems to urge the company toward this. The company is left between the devil and the deep sea—between litigation under financial difficulties and municipal ownership under some plan which is inferentially to be considered easy of accomplishment. It should be noted that heretofore in public utterances, one of which was published in the issue of Dec. 1, Commissioner Whitney has taken pains to explain with what comparative facility the rapid transit act could be extended to authorize the purchase or lease of the surface lines.

Without doubt there will be certain surface railway problems to be solved in New York City when the new

rapid transit system is completed. It is most unseemly, however, for any commissioner to talk so much about public ownership of companies while fare cases for such carriers are pending. Commissions are appointed not to spread political propaganda, but, with other duties, to adjudicate rate cases impartially. While theoretically a commissioner can talk municipal ownership and still protect the fair return of the existing private investment, practically such talking is as flagrantly wrong as the holding of securities in regulated utilities.

Electric Railways Offer Attractive Occupation for Women

THE New York Railways Company deserves the thanks of the industry for demonstrating the practicability of the use of women conductors on surface cars. Whether the experiment would have been undertaken had it not been for the existing labor shortage on account of the war, it is hard to say. At any rate, it is a proved success. Some 300 women are now being employed as conductors on the Broadway, Seventh Avenue and Eighth Avenue Lines, as well as on four of the crosstown lines (including one storage-battery line), and others will be employed when the accommodations for them at the different terminals are installed. We believe this was the first instance of the kind, at least on any considerable scale, in this country although to the Brooklyn Rapid Transit Company belongs the credit of using women first in transportation service, namely as guards on its Fourth Avenue subway line.

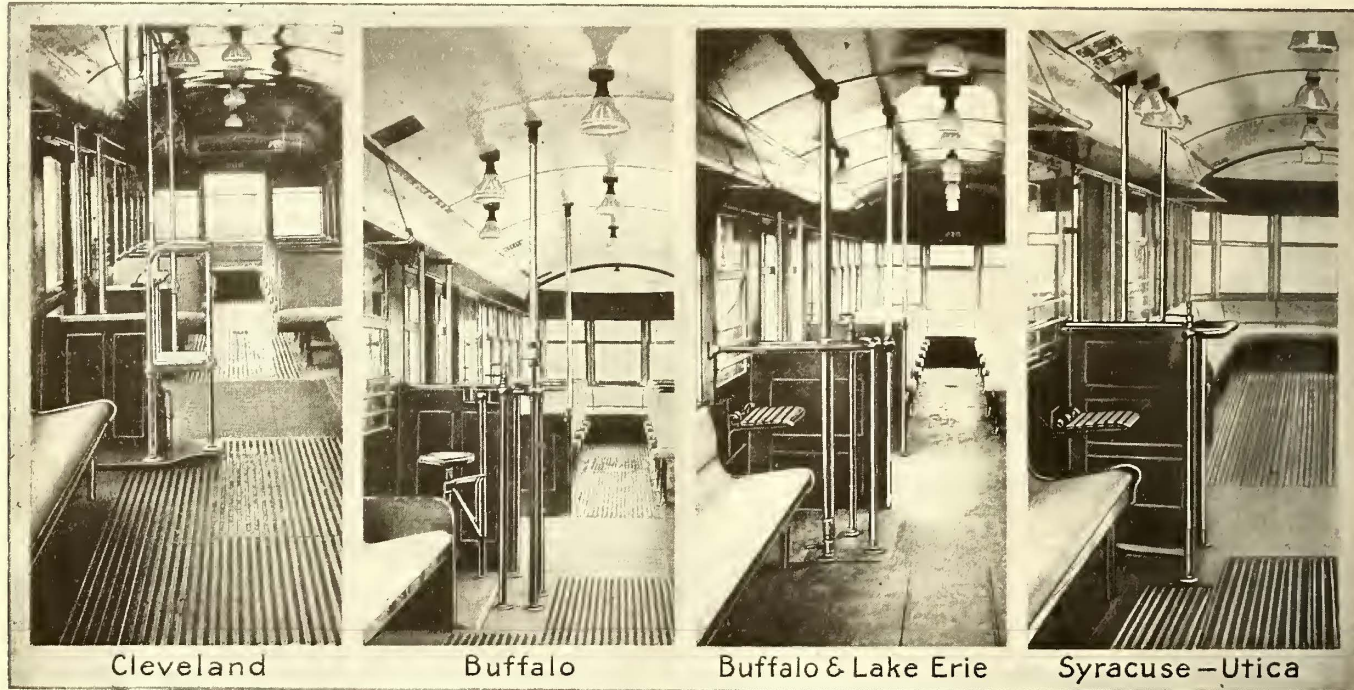
One reason which has possibly held back other companies from this course has been a fear of disapproval on the part of present men employees. The New York Railways Company, however, disarmed all possible criticism from such source by explaining, first, the necessity of the plan from a labor standpoint, and, second, by assuring the present men that none of them would be supplanted. Women would be engaged only to fill vacancies, and any man could retain his position on his line and on its seniority list if he cared to do so, or if he wished to train as a motorman the company would give him the instruction and let him keep the rate of pay which he had earned by seniority as a conductor.

The women receive the same rate of pay as the men, choose their runs according to their position on the seniority lists in the same way as the men, and work on cars in which fares are collected after the passenger becomes seated as well as on prepayment cars, so that no distinction is made in their class of work. Car posters, however, explain to the public that the women are doing a patriotic duty and passengers are requested to help them by having their fares and transfers ready. Although the period since the women have been at work has been about as unfavorable so far as weather is concerned as could be imagined, there has been no complaint from the new employees or from the public.

The result of the New York experiment is that a new and responsible occupation has been opened for women at good rates of pay, under working conditions far less arduous than those under which many women work. We see no reason why women conductors should not be employed on many other roads in this country to the benefit of the women and in the interests of good service.

The Front-Entrance, Center-Exit Car and Higher Schedule Speed

For Conductors' Stations on Recent Pay-As-You-Pass-Cars See Diagrams on Page 122



Cleveland

Buffalo

Buffalo & Lake Erie

Syracuse-Utica

Experience in Several Cities Is Cited to Show That This Type of Car Is Meeting Expectations—Minor Details Are Undergoing Improvement

FOUR years ago the Cleveland Railway introduced a type of car in which the conductor was stationed near a center exit, the entrance being at the front. The fares were paid as the passengers passed the conductor, the fare-collection period being thus extended as compared with that in the pay-as-you-enter car. The story of the inception of the new type of car was fully covered in an article by its inventor printed in the issue of this paper for Jan. 5, 1918. Since its inception in Cleveland it has been introduced in Schenectady, Syracuse, Rochester, Buffalo, Toledo, and on the lines of the Mahoning & Shenango Railway and the Buffalo & Lake Erie Traction Company.

The purpose of the present article is to give the results of a study of the operation of the front-entrance, center-exit car on the properties mentioned. For this purpose a number of cities were visited by members of the staff of the JOURNAL, managers and heads of the several departments concerned were interviewed, and the car operation was examined under rush-hour as well as average conditions. As any good car is bound to be satisfactory to patrons when there is plenty of unoccupied seating capacity within, attention was particularly concentrated on the rush hour.

In order to focus attention on the essentials, such questions as the following were kept in mind, and were addressed to the officials consulted:

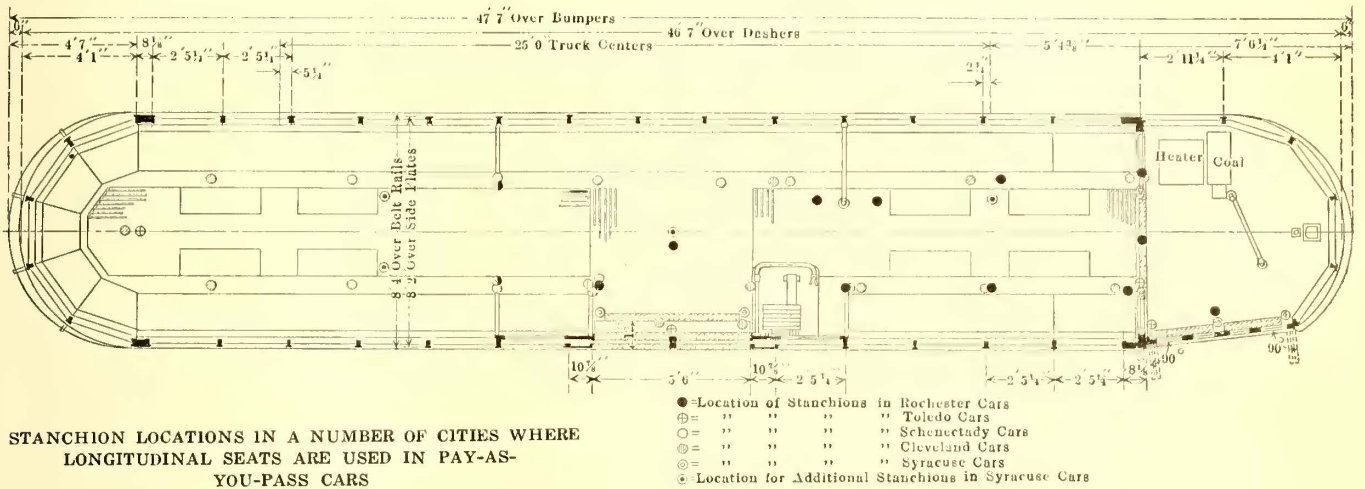
1. What have proved to be the most conspicuous virtues of these cars?
2. Are any data available as to the relative loading and unloading speeds of these cars as compared with cars of other types?
3. What changes have suggested themselves as a result of the use of these cars?
4. Is there noticeable crowding at the entrance end of the cars?
5. Has there been any noticeable loss in fares due to the working off of old transfers on the conductors at heavy unloading points during the rush hours?
6. Has there been any tendency to "beat it" at the front entrance door when the motorman is away from his post for the purpose of changing switches, etc.?
7. Is there much confusion due to the use of the front entrance on account of the patrons being accustomed to entering at other points in the cars?

Other questions will suggest themselves to the reader, and it is hoped that any such will be answered at least indirectly in the reports of observations which follow.

It is the unanimous testimony in all cities that the new cars are conspicuous for the facility with which passengers can board and alight. Obviously with two lines entering and leaving, and no throttling of ingress due to fare collection and transfer issuing, there ought

to be a considerable saving in time over earlier cars. Curves showing this feature were reproduced on page 31 of the Jan. 5 issue. One superintendent said that he had received much favorable comment from car users, especially from aged people who liked to ride

wise seats the latter were preferred by some because their use resulted in a greater floor space for standing passengers. As the car is particularly adapted for rush-hour service this argument is a strong one. Opposed to it, however, is the psychological fact that



upon these cars on account of the ease with which they could get on and off.

In Cleveland one of the officials of the railway estimated that loading and unloading with these cars are at least 50 per cent faster than with the company's center-entrance cars. As the cars in the city are used mostly on crosstown lines where the passengers are in general picked up in groups, this loading feature is especially important. In Schenectady when the cars were first put into operation it was estimated that

passengers prefer to sit in cross-seats, because it is easier to brace oneself against the inertia force when the car stops and starts, and there is a certain sense of privacy due to the stall arrangement thus provided. At any rate, it is easier to persuade the riders to go to the rear of the car, paying their fares en route, when they see cross-seats there.

After experience with the longitudinal seats several companies will use cross-seats in later cars, although it is only fair to say that opinion as to the wisdom of



A HEAVY LOADING AND UNLOADING POINT IN BUFFALO, N. Y. WITH THIS TYPE OF CAR THE BOARDING AND ALIGHTING PASSENGERS ARE SEGREGATED

from three to five minutes would be saved on a half hour of running time.

When these pay-as-you-pass cars were first designed, and for some time afterward, there was a tendency to use longitudinal seats in the rear as well as the front, where they are of course necessary. As the seating capacity is substantially the same with cross and length-

doing so is not unanimous. In the opinion of at least one manager the public is not adverse to the earlier arrangement after a few days' experience, especially those passengers who are obliged to ride in the rush hour. On the other hand, considered as a seating proposition rather than a standing one, there is no doubt that the cross-seats conduce to a better use of the seat-

ing space. The whole question resolves itself eventually into one of the extent to which the rush hour is to settle the seating arrangement; and, keeping the passengers' comfort in mind, there is no doubt that those fortunate enough to secure seats at all in the rush hour are much more comfortable in cross-seats.

Quite directly connected with the pay-as-you-pass principle is the matter of floor levels and ramps. Here there are two sets of conflicting requirements between which a compromise is necessary. In the first place, it is desirable to get the passengers to their seats and to the street with as little climbing as possible. A low-floor car is therefore practically a necessity, and a single exit step is desirable. But ramps to permit one exit step may cause accident, although properly placed stanchions will minimize this danger. At times other than loading and unloading, a ramp is uncomfortable for those who have to stand upon it, and it should be as easy as possible for passengers to pass from the front of the car to the rear. Therefore, the tendency seems to be to do away with the ramps as will be done in the new Syracuse, Toledo and other cars.

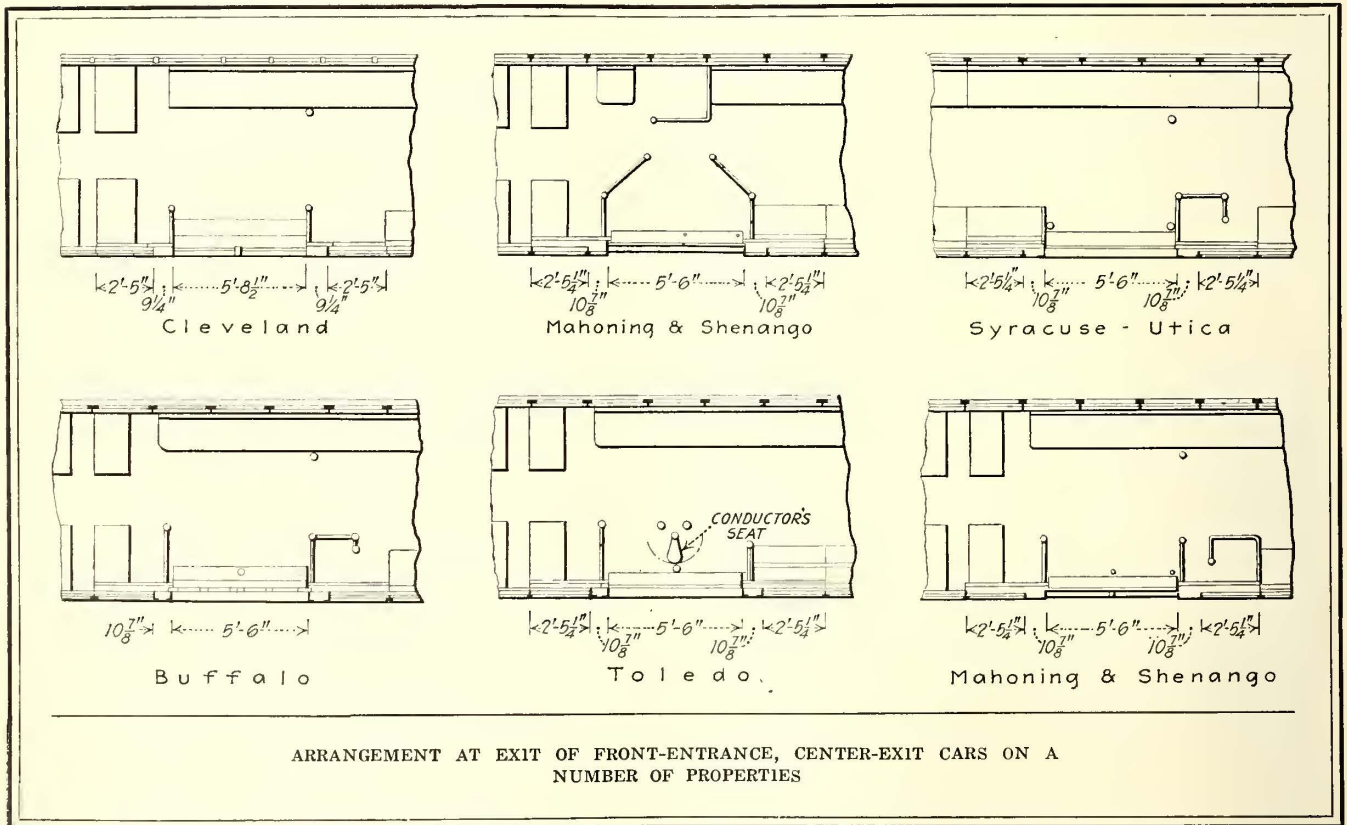
The early Syracuse car has 5½ in. in the ramps, and one exit step. The new cars will have these step

the number of arguments between passengers and conductors as to whether fares have been paid or not.

Some support must be provided for passengers standing and in transit. Horizontal hand poles and vertical stanchions have been used for the purpose, preferences regarding them being divided. In Rochester several stanchions have been added to the original equipment, the horizontal rods being removed. The latter are, however, in general retained, extending the length of the car when longitudinal seats are provided in the rear. In the new Syracuse cars the rod will extend from the front of the dividing stanchion only, as it is considered not desirable to encourage standing in the center of the car. The rod in this case will be placed 66½ in. above floor slats, and 13½ in. out from the frieze board.

There is considerable objection to stanchions in that they mar the appearance of the car and interfere with cleaning. On the other hand they are comfortable for the passengers and are adapted to the use of children and short adults.

In seeking the best locations for stanchions in longitudinal seat cars the New York State Railways, Syracuse lines, secured from several other roads informa-



heights: Front entrance, rail to step 13 7/8 in., step to platform 12 in., platform to floor 5 1/2 in.; center exit, rail to step 13 7/8 in.; each step 8 7/16 in.; slight drainage ramp in floor at middle of car. In Syracuse it was found that most accidents occurred near the middle of the front ramp, there being very few on the back ramp. This checks with experience in Rochester, where it was noted that the accidents occurred through the starting of the cars. In Syracuse the moving of the middle stanchion to a position half way up the front ramp has had a beneficial effect in reducing accidents. Another benefit of this has been to cut down

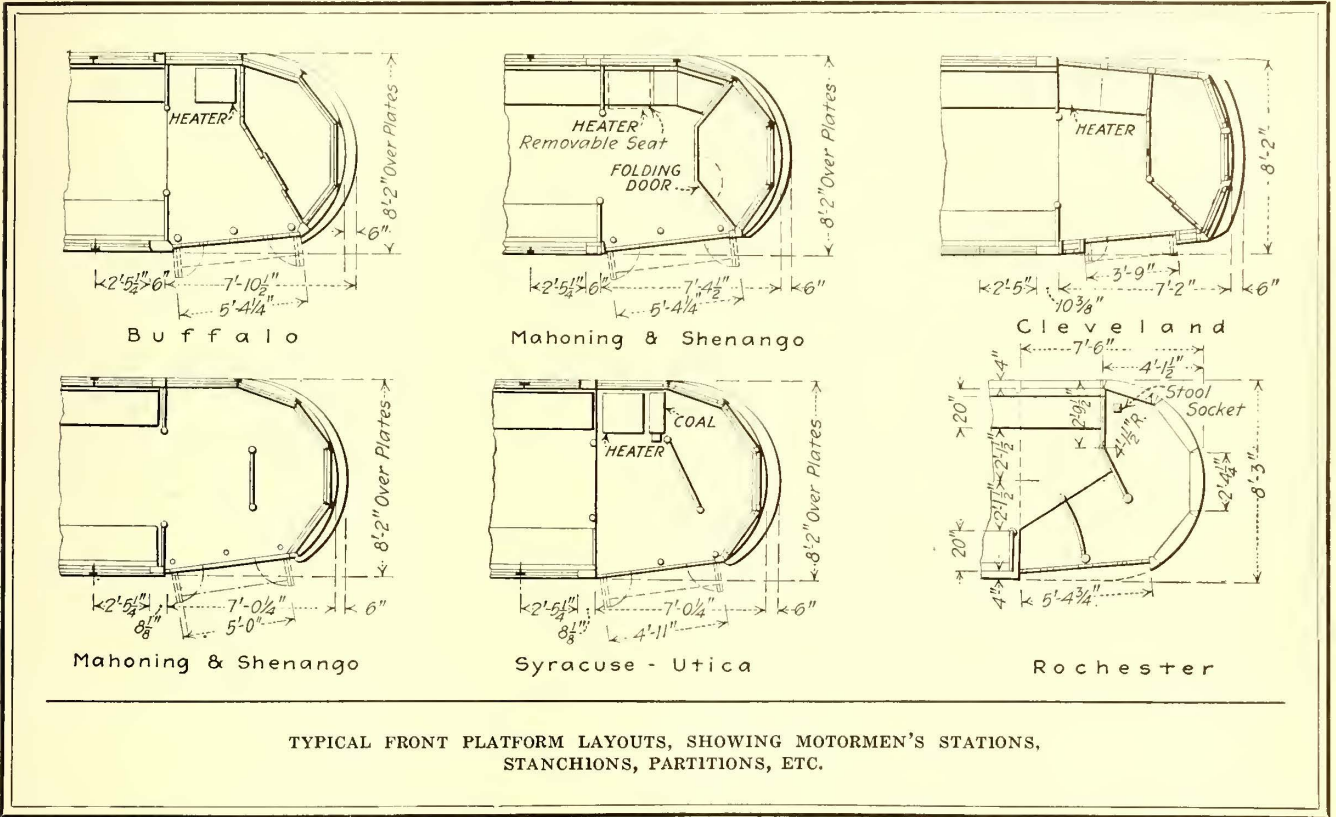
tion as to their practice. A diagram like that shown was prepared to indicate the several stanchion layouts superimposed. Dummy stanchions were also placed in a car and representatives of several departments were asked independently to place them where they thought best. The averages of these locations were then selected as far as was practicable from the structural standpoint. Some deviation was necessary in cases, such, for example, as when the ideal location proved to be over a trapdoor in the floor. The final selections are indicated on the diagram on page 121.

One of the big problems in rush-hour transportation

is to utilize all of the space within the car by impelling patrons to distribute themselves uniformly. There is a tendency to crowd about the entrance, and passengers are often quite selfish in this matter. Experience in Toledo, Schenectady, Buffalo, Cleveland and elsewhere indicates that the new car is not a panacea for this difficulty, although conducive to good results if the conductor makes proper use of his favorable location to urge the passengers to move rearward. The motorman can help also. The possibility of getting a crowd on board promptly should, if utilized, tend to keep the

the rush of unloading a car, particularly at a transfer point. The conductor has so much to do in issuing transfers and collecting fares of alighting passengers and those passing his stand that an unscrupulous person might be inclined to push into the rear without paying, or to impose on the conductor as suggested above. One railway man offered to demonstrate to the writer that this could be done on the cars of his own company, although he regarded with favor the pay-as-you-pass plan in general.

The fact is that the public is not to any considerable



TYPICAL FRONT PLATFORM LAYOUTS, SHOWING MOTORMEN'S STATIONS, STANCHIONS, PARTITIONS, ETC.

passengers moving once they are in the car. In Schenectady the management noted that there is no crowding until the seats are full and about thirty people are standing. Then congestion seems to be about the same as with the pay-as-you-enter cars. If the conductor will request passengers near him to pay their fares and move rearward he can usually secure co-operation, but sometimes they refuse and persist provokingly in standing around the stanchions near the conductor and to some extent blocking the passageway.

In Cleveland also there is considerable congestion, but the railway management believes that the conductor should be able to supervise the passenger distribution well on account of his central position. As one official puts it: "When the conductor is stationed away at the back end of the car his entreaties to move forward have little effect. When he is in the center of the car, and hence right in the midst of the crowd, he can direct passengers to the back end of the car more effectively and thus clear the loading platform for more passengers to enter."

In any pay-as-you-leave feature of car operation there is involved a possibility of a dishonest passenger taking the opportunity to work off an old transfer in

extent bent upon "beating" the railway, and the losses with these cars are probably no more than with other types. In Toledo, for example, at first some slight loss was noted, but now this has dwindled to negligible proportions. In Rochester, Cleveland and elsewhere the same is true. In Cleveland the loss is less with the pay-as-you-pass cars than it was with the pay-as-you-leave cars. In Schenectady the officials believe that the comparative leisure permitted to the conductor for examining the transfers of those going to the rear results in a considerable saving over former plans of fare collection.

Another remote possibility of loss of fares is that passengers might remain in the front of the car and slip out if the motorman had to leave his post, for example, to move a switch point. So few cases of this kind have been reported that the contingency need not be considered farther. In fact, there are few occasions for motormen to be out of their vestibules, so many switches now being electrically operated.

An element in quick loading is to eliminate possible confusion due to misunderstanding as to car boarding points. As the public is accustomed to rear and center-entrance cars there was a question as to

the effect of adding to existing rolling stock new cars with front entrances. Of course, if all cars on a system were alike there would be no confusion, but what if there are other types on the system or were on the

The above does not mean that the pay-as-you-pass car is not adopted to the zone system, but is simply cited to indicate that even in the birthplace of this type there are routes on which it has not yet been con-



FLASHLIGHT SCENE DURING EVENING RUSH HOUR
AT ROCHESTER, N. Y.

same line? This point was therefore carefully investigated.

The result of the investigation was to show that the public soon "takes to" the front entrance cars, readily learning to distinguish them and locating themselves properly. Entrance signs such as were mentioned by J. F. Layng in his article in the Jan. 5 issue will prevent confusion altogether. In Schenectady the few complaints received by the company that were chargeable to the entrance location were, in the opinion of the local officials, due rather to the other cars than to the front-entrance cars. In Cleveland there was less confusion with the latter than with the older front-and-rear platform car which operated rear entrance on the inbound trip and front entrance in the outbound trip.

In most of the cities where the front-entrance, center-exit car has been introduced the operating conditions have been rather similar, the collection of a single fare being involved. In Cleveland it has been considered impracticable to operate it on the Lakewood line, for example, where the following conditions obtain. The 3-cent fare is collected pay-as-you-leave up to the zone limit and 5 cents is collected from everyone leaving the car beyond that point. Any one boarding the car beyond the limit must pay as he enters and is given an identification slip for use when he gets off. Coming into the city all fares are collected pay-as-you-enter and an identification check is given to all passengers who have paid 5 cents. Then when the zone limit is reached the conductor goes through the car and collects these checks.

sidered applicable. As stated on page 33 of the issue for Jan. 5, the zone plan will be operated on the five-zone line of the Mahoning & Shenango Railway between Warren and Lowellville, Ohio, for which the pay-as-you-pass cars have been adopted.

Advertising on Top of Cars



BARTLESVILLE, OKLA., INTERURBAN CAR WITH ADVERTISING
SIGNS ON TOP

THE cars of the Bartlesville (Okla.) Interurban Railway carry advertising cards on the top outside as well as on the inside. The placing of the exterior cards is shown in the accompanying illustration. The four cards on the outside bring in as much revenue as the thirty or more of those on the inside.

12639

Constitutional Barrier Against Fair Rates

Seven-cent Fare for New York City Line Would Be Reasonable, but First District Commission Refuses Relief—Alleges City Has Constitutional Right to Fix Fare Limit in Consenting to Operation—Municipalization Mentioned as One Way Out

SO near and yet so far! The New York & North Shore Traction Company ought to have a 7-cent fare, in view of its financial circumstances and its right to earn a fair return. The Public Service Commission for the First District of New York, however, believes that it has no power to authorize the increase. In its opinion, only proof of the waiver or modification by New York City of the 5-cent fare limitation which the municipality made a condition of its constitutional consent to the use of the streets could enable an increase to be made through the commission's exercise of power delegated to it by the Legislature. Among the other methods of relief which the commission mentions is municipalization.

To appreciate this decision, which was unanimously approved on Jan. 10, it is necessary to recall that the New York & North Shore Traction Company lies partly within the jurisdiction of the First District or Metropolitan Commission in New York City, and partly in that of the Second District or Up-State Commission. Some time ago the company was refused an increase in fare by the latter commission, on the ground that the local authorities had prescribed a 5-cent fare as one of the conditions of consent to operation. The New York Appellate Division, Third Department, however, ruled that the commission had the power to grant an increase, rate making being essentially a legislative function. In accordance with this decision the Up-State Commission recently increased the rates of the company on the lines within its jurisdiction.

Application was then made for relief for the lines in New York City. Acting under the same fundamental law, the Metropolitan Commission has now reached an opinion diametrically opposed to that of the Up-State Commission, as expressed in the New York & North Shore case and with greatest detail in the recent Huntington Railroad case (*ELECTRIC RAILWAY JOURNAL*, Nov. 24, 1917). The opinion of the Appellate Division, Third Department, the New York City Commission dismisses with deference, but in words practically amounting to an assertion that the court did not know what it was talking about.

FUNDAMENTAL QUESTION IS ONE OF CONSTITUTIONAL LAW

The point of vital importance, therefore, is this: What does the Metropolitan Commission think it has found to be an insuperable obstacle against what its companion commission believes is a proper exercise of regulatory powers? The decision of the New York City body, eighty-nine printed pages in length, is too voluminous for reproduction here. The following abstract, therefore, will omit entirely the discussion of the financial needs of the company, since the commission finds that a just and reasonable maximum fare would be 7 cents, and will confine itself to the main conclusions

reached by the writing commissioner, Travis H. Whitney. The financial needs of the company, it might be added, were explained in these pages at various times last summer in the reports of the hearings that were held in the case.

The legal provisions underlying the case are briefly shown at the bottom of page 126. The vital question, involving basic points as to the demarkation between State and municipal powers, relates to the difference between *constitutional* and *statutory* law. The New York State Constitution (Article III, Section 18) provides that "no law shall authorize the construction or operation of a street railroad except upon the condition that the consent . . . also of the local authorities . . . be first obtained."

Confusion has arisen, Mr. Whitney says, from a failure to keep in mind the contrast between such a constitutional requirement and a mere statutory authorization of such local consent. The issue, he states, has not been passed upon by controlling authority in the State, and co-operation in securing an early adjudication of the question is desired.

RATES ALTERABLE WHERE ONLY STATUTORY LAWS ARE INVOLVED

In presenting what he believes to be the relevant legal principles involved, Mr. Whitney avers that cases which have arisen in the absence of such a constitutional provision as above noted are not applicable. A distinction as to the Legislature's subsequent powers is clearly to be drawn between a case where the city fixes a fare maximum in the exercise of legislative powers delegated to it by the Legislature and a case where the city fixes the fare in the exercise of powers granted to it by the Constitution in limitation on the powers of the Legislature. Where the Legislature delegates its general powers to the city as its agent, the Legislature may lessen or abrogate those powers, or may abrogate or modify, directly or through another agent (the commission), what has been done by and through the first agent (the city).

No more than this, Mr. Whitney states, is held by such cases as *City of Worcester vs. Worcester Street Ry.*, 196 U. S. 539; *Arlington Board of Survey vs. Bay State St. Ry.*, 224 Mass. 463; *New Orleans vs. New Orleans Water Works*, 142 U. S. 79; *North Wildwood vs. New Jersey Public Utilities Commissioners*, 95 Atlantic 749; *Matter of City Water Company*, P. U. R. 1917 B, 624; *Puget Sound L. & T. Co. vs. Reynolds*, 37 Supreme Court Reporter 705; *Bay State St. Ry. Rate Case*, P. U. R. 1916 F, 221; *Denver R. R. vs. Englewood*, P. U. R. 1916 E., 134, and similar cases.

To bring the point closer home, Mr. Whitney admits that, according to the trend of judicial pronouncement which the commission ought in fairness to follow, there is no *statutory* barrier to the granting of a 7-cent fare

for the New York & North Shore Traction Company. Along this line he says:

"It cannot be gainsaid that the disposition of the New York courts has been to uphold the view that the Legislature has made the commission a repository of the legislative power, the Legislature's agent for the expert ascertainment and enforcement of reasonable rate standards, empowered thus to supersede for good cause shown a rate once fixed by the Legislature itself. The tendency has been to look upon the language of the various statutes as warrant for the paramountcy of the commission's expert findings over lower or higher rates fixed casually by the Legislature; except, of course, where the Legislature otherwise specifically directs as to the commission's power over rates, as in the case of gas and electrical corporations.

"At least in the absence of a further clarification of the subject through judicial decision, I am constrained to hold that, aside from the limitation contained in the franchise granted by the city under the constitutional provision, there is no barrier to the commission's power to sanction the placing in effect of a 7-cent rate. I believe that the present case may best be determined on that basis, without prejudice to a fuller consideration of this phase in connection with other cases now being heard. It should be said, of course, that in passing upon the issues of the present case, the commission has in nowise dealt with the question of its power to sanction an added charge of 2 cents for transfers, over and above a 5-cent fare, on the part of companies whose franchises from the city contain no conditions as to fares or transfers."

In Mr. Whitney's opinion, however, an essentially different situation arises where, as in New York, the Legislature's power with respect to the use of the streets is restricted by a constitutional requirement, and "the legislative power possessed by the municipality to grant, withhold or fix terms for its consent to such use is derived not from the Legislature but from the Constitution." Under the constitutional provision the city is empowered to exercise the legislative power of determining the conditions on which it will grant its consent, if at all. (*Adamson vs. Nassau Electric R. R.*, 89 Hun 261, 266; *People ex rel. Frontier Ry. vs. City of North Tonawanda*, 70 Misc. 91; *Detroit Citizens' St. Ry. vs. Detroit Ry.*, 171 U. S. 48; *People ex rel. South Shore Traction Co. vs. Willcox*, 133 App. Div. 561; *Allegheny City vs. Railway Co.*, 159 Pa. 411, 416).

DECISION OF APPELLATE DIVISION WRONG

The decision of the Appellate Division, Third Department (175 App. Div. 869), in the New York & North Shore case is asserted by Mr. Whitney to proceed on assumptions unsupported by the authorities. He says:

"Its basic assumption is stated to be, not that Section 18 of Article III of the Constitution is to be read as a limitation and a restriction on the general legislative power conferred on the Legislature by Section 1, or that Section 18 delegates certain sovereign power to the city, just as Section 1 delegates certain powers to the Legislature, but that 'manifestly Sections 1 and 18 of Article III of the Constitution must be read together.' This statement evidently led a majority of the learned court to regard Section 1 as a limitation upon

Legal Provisions Underlying New York & North Shore Case

1. *New York State Constitution:*

Article III, Section 1: "The legislative power of this State shall be vested in the Senate and Assembly."

Article III, Section 18: "No law shall authorize the construction or operation of a street railroad except upon the condition that the consent . . . also of the local authorities . . . be first obtained."

2. *Greater New York Charter:*

Section 73: "Every grant shall make adequate provision by way of forfeiture of the grant, or otherwise, to secure efficiency of public service at reasonable rates and the maintenance of the property in good condition throughout the full term of the grant."

Section 74 (at the time petitioner obtained its franchise): "Before any grant . . . shall be made by the Board of Estimate and Apportionment, the proposed specific grant embodied in the form of a contract with all the terms and conditions, including the provisions as to rates, fares and charges . . . shall be entered in the minutes."

3. *Railroad Law:*

Section 93 (in 1909): "The local authorities may, in their discretion, make their consent to depend upon any further conditions . . . respecting the application of any provision herein con-

tained as to the carriage of passengers for a single fare . . . and also respecting any other matter concerning which, in their judgment, further conditions would be for the public interest."

Section 181 (formerly Section 101): "No corporation constructing and operating a railroad under the provisions of this article . . . shall charge any passenger more than 5 cents for one continuous ride from any point on its road, . . . within the limits of any incorporated city or village . . . The Legislature expressly reserves the right to regulate and reduce the rate of fare of any railroad constructed and operated wholly or in part under such chapter or under the provisions of this article; and the Public Service Commission shall possess the same power, to be exercised as prescribed in the Public Service Commission Law."

Of the above-quoted excerpt from the present Section 181, Commissioner Whitney says, the last clause was added by Chapter 481 of the Laws of 1910, enacting the revised and amended form of the Railroad Law as Chapter 49 of the Consolidated Laws. In other respects Section 181 parallels Section 101 of the statute as it stood at the time the City of New York entered into a franchise contract granting its "consent" to the petitioner.

4. *Consent of City of New York:*

In obtaining the "consent" of the City of New York to the construction and operation of its railroad, the petitioner entered into duly executed contracts under date of Feb. 1, 1909, and April 14, 1909, respectively. Among the conditions in these contracts were the following:

"The rate of fare for any passenger upon said railway shall not exceed 5 cents, and the company shall not charge any passenger more than 5 cents for one continuous ride . . . within the limits of the city.

"This grant is also upon the further and express condition that the provisions of the Railroad Law, pertinent hereto, shall be strictly complied with by the company."

5. *Public Service Commission Law:*

Section 49: "Whenever either commission shall be of opinion . . . that the maximum rates chargeable . . . are insufficient to yield reasonable compensation for the service rendered, and are unjust and unreasonable, the commission shall . . . determine the just and reasonable rates to be thereafter observed and in force as the maximum to be charged for the service to be performed, notwithstanding that a higher rate has been heretofore authorized by statute."

Section 18 of Article III, and as qualifying the power granted to the local authorities by Section 18 of Article III, instead of looking upon Section 18 as *pro tanto* a separate grant of autonomous power possessed by the State or as a limitation upon Section 1.

"This inexactness then brought a majority of the court to the fundamentally erroneous conclusion that 'the local authorities are prohibited from attaching conditions to the consent which assumed to regulate the rate of fare, for the reason that the right to regulate fares to be charged by public service corporations is essentially a legislative function. . . . As well might the Legislature disregard the constitutional rights of the local authorities and itself assume to give the constitutional consent as the local authorities assume the constitutional rights of the Senate and Assembly to legislate regarding the rates of fare. . . . The constitutional provision regarding legislating is a restriction upon the local authorities in the matter of attaching conditions fixing rates of fare.' From this the court concluded that at least where the Legislature had not delegated to the local board the power to exact a fare condition in granting its consent, the Legislature might, through the commission, advance a rate above the figure the local board and the company had agreed upon.

"How far the New York & North Shore decision would, even under its own basis of determination, apply to and control a situation where, as in the present case involving the City of New York, the power to prescribe fares in granting 'consent' had been conferred on the municipality by express terms of a legislative act, if not also by fair implication from the constitutional grant, I do not think it necessary to discuss here. The primary question is whether the learned court was correct in its assumption that the Constitution prohibits the local authorities from making a fare limitation one of the terms and conditions of the local consent. I think it was not."

LEGISLATURE CANNOT MODIFY CONSTITUTIONAL RATES

If, then, a company has assented to a fare limitation as a condition of the city's consent for operation, can it be relieved by legislative action over the city's objection? Mr. Whitney says not. His belief he expresses as follows:

"If a municipality has bound an electric railway corporation to charge no more than 5 cents, the Legislature, in the exercise of its general regulative powers, could itself, directly or through a commission, reduce the fare to 4 cents or 3 cents, or could exercise its regulative powers in any manner which did not nullify, defeat or impair the standards of maximums in rates and minimums in service which the city had set up as conditions of its consent. On the other hand, a general legislative act prohibiting a fare in excess of 10 cents would not prevent the city from granting its consent on terms prohibiting a charge in excess of 5 cents. Either the Legislature by a general act or a delegation of power to a commission or the city by a franchise contract could reduce the fare below a maximum fixed by the other, but neither could advance it above a maximum fixed by the other."

Mr. Whitney concludes, therefore, that the commission has no power to put a 7-cent rate into effect in the present case, in the absence of proof of the consenting

action of the city authorities. In summing up, he says:

"To construe the Public Service Commission Law to vest this commission with power to increase above the franchise maximum rates fixed by contract between a municipality and a street railroad corporation in the exercise of the constitutional requirement of the city's consent, would be to construe the Public Service Commission Law to be to that extent unconstitutional. At least any attempted exercise of such a power would be nugatory, as an attempt under color of statute to defeat a right protected by the constitution. The interpretation that the Public Service Commission Law was not designed to authorize any such interference with a franchise maximum is at least equally open to the commission and the courts, and in fact nothing in the language of this law denotes an intent to confer power to override a franchise contract. The barrier as to rates 'heretofore fixed by statute' is taken down, but there is no reference to rates fixed by a franchise contract under the *constitutional* protection.

"No such franchise contract can be exercised or proceeded under by the company without the approval of the commission and its determination of the public convenience and necessity thereof. The commission can grant or withhold its approval; it can refuse to approve because the city insisted upon a term or condition which defeats the public convenience and necessity; but if it finds that public convenience and necessity would be served, it cannot modify the terms of the city's consent or refuse to grant approval merely because it does not like the terms exacted by the city.

"The view contended for by the petitioner leads to absurd conclusions and would make the law accomplish ridiculous results. For example, that the Legislature could not prevent the city from binding the company to a 5-cent rate before letting the company use its streets but could take out the 5-cent limitation and authorize a dollar fare the day afterwards; and, likewise, that the commission could not modify the 5-cent fare clause of the franchise and substitute a higher fare before approving it, but could approve it first and then modify it as soon as approved. If, by reason of the constitutional provision, the Legislature 'could not' authorize the commission to modify the fare clause before approving the franchise, I do not believe that the Legislature could authorize the commission to modify it afterwards. And if, as the Appellate Division, Third Department, has held, the Constitution prohibits the city from putting a fare provision in its franchise contract, could there be doubt of the commission's power to refuse to approve such a clause?

"Within the sphere of its own constitutional functions, under the grant to it of sovereign powers of legislation, the Legislature is left free to regulate the public service corporations chartered by the State under its authority, and if, by such regulation, requirements are imposed in addition to those stipulated by the municipality, it cannot be said that the Legislature has usurped functions or powers of the city, or vice versa.

"It should perhaps also be emphasized that we are not here dealing with the question of public policy whether the commission ought or ought not to be vested with the power to advance the rates of the petitioner without the acquiescence of the city. That question of public policy is, or was, a matter for the people to decide, not the commission."

Mr. Whitney feels, however, that the present situation is one where the public authorities share responsibility with investors for the construction of the railway. To his mind, if the 5-cent fare does not afford an adequate return, it does not of necessity follow that the situation must be dealt with by the municipality through its consent to a fare increase. The situation may be dealt with in any one of these ways:

1. The city of New York may consent to a waiver or modification of the fare provisions of the franchise contracts, and thus enable the putting into effect of the 7-cent rate, which is found necessary for the continuance of present service under present operating costs.

2. The city and State may to a large extent lessen the company's financial difficulties by remission and repayment of moneys now going into the public treasury out of the company's revenues, by virtue of franchise and statutory provisions.

3. The city may extend to the company the principle and policy of municipalization, already embodied in other aspects of the city's transportation policy—such extension of municipalization to come about through purchase, lease, or acquisition under a municipal guarantee of a fixed return upon unimpaired investment, with a gradual amortization, over a period of years, of this investment out of the earnings, supplemented as need be by contributions from the public treasury.

CITY MIGHT STOP DRAINS ON REVENUE

Under the company's franchise the investment in New York City is being amortized out of earnings, so that at the end of the fifty-year period the property will pass to the city without further payment. In regard to this and other burdens imposed upon revenues by the city, Mr. Whitney says:

"The city is itself responsible for an annual drain amounting to nearly 25 per cent of the company's corporate income. This sum is exacted in addition to all State and local taxes, including franchise taxes amounting to \$1,663 more, and this sum is subtracted from the company's corporate income by virtue of the provisions of the same instrument which stands in the way of advancing the fare above 5 cents.

"The bearings of such a policy should be frankly recognized. What goes into the public treasury as taxes, percentages, relinquished property, and the like, must, under circumstances such as those operative as to this company, come out of the fare-payer, or must in some other form come again from the taxpayer. It cannot, over any long period of time, come out of the investors. Efforts to leave the investors to bear the burden can only mean deterioration of service, failure to make needed extensions and eventual receivership. Ought the city to require passengers to pay the cost of early city ownership of all the company's property situated in city streets, and nevertheless leave the company unable to do more than furnish to those passengers grossly inferior service?

"If the city does not wish fares to be advanced so as to enable the company to keep up the present rate of payment of percentages, franchise taxes, amortization and the like, the city might help meet the situation by further modifying the franchise terms so as to obviate this drain on the company's revenues, and might fur-

ther ask for legislative action dispensing with franchise taxes now payable out of the company's too slender receipts."

In regard to meeting the situation by extending the policy of municipalization from rapid-transit to surface lines, Mr. Whitney states:

"The city must soon face the problems arising from the fact that other corporations engaged in essential services of transportation, particularly if not embraced in and protected by the dual contracts, will continue under the necessity of having such a revenue vouchsafed as will allow them also, in addition to all operating charges and allowances, a reasonable return upon the value of the property used by them for the public service. If this means a cost per passenger in excess of 5 cents, the public is faced with the alternative of requiring passengers in less congested regions to pay a fare in excess of 5 cents or of extending the municipalization of responsibility or ownership so that the cost of transportation, if in excess of that which can be met by a 5-cent fare ordained by public policy, shall to that extent be borne by the public through taxation.

"For it is obvious that if a needed service of transportation is to continue it must derive from some source sufficient revenue to meet all costs of transportation, and that this is true whether such transportation is furnished by private ownership and operation, or by municipal ownership and private operation, or by municipal ownership and municipal operation. If private ownership and operation continues, the public must realize that fares must be such as to produce a sufficient income. But, on the other hand, if the fare is to remain constant and uniform, there must be provision whereby increasing costs of transportation shall be met, if need be, through further extensions of municipalization."

How Municipal Lines Are Aiding Great Britain

THE Municipal Tramways Association of Great Britain has issued an elaborate series of tables in regard to allowances for dependents, war bonuses, enlistments, employment of women and similar matters. Below is published a comparative summary of the activities of the municipal electric carriers along such lines in 1916 and 1917 (data having been supplied in August):

	July, 1916	July, 1917
Number of municipal authorities replying to queries	88	84
Number of towns certified under Munitions of War (Amendment) Act	44	57
Number of employees at normal times	55,208	55,208
Number of men who have joined His Majesty's Forces	20,905	29,268
Percentage to total	38	53
*Number of men who have left municipal tramways undertakings to join munition factories	1,893	1,776
Percentage to total	3½	3.2
Amount paid to dependents of employees serving with His Majesty's Forces	£854,649	£1,437,603
Average allowance per man per week	10s. 7½d.	11s. 4½d.
Amount collected on cars for various national and other objects	£43,800	£84,509
Amount contributed by municipal tramway employees to various relief funds	£36,070	£38,170
Number of municipal systems employing women conductors	75	76
Number of women conductors	8,433	11,757
Number of municipal systems employing women drivers	7	18
Number of women drivers	176	611
Number of municipal systems employing auxiliary drivers	19	26
Number of auxiliary drivers (male)	320	564

*The figures under this heading are only approximate, as it is not known what particular section or unit the men have joined. Therefore in some cases these have been included in enlistments.

How New York Commissioners Differ in Basic Rate-Making Views

Second District

Commissioner Carr

It may be said to be settled that the Legislature has full power to delegate rate-making powers to the Public Service Commission, and that the Public Service Commission has full power to fix just and reasonable rates for carriers and public service corporations, and that the fixing of rates is a proper exercise of the police powers of the State.

* * *

In view of the numerous decisions from which we have quoted at length we think it is settled beyond question that municipalities have no right to impose conditions in franchises other than those which the statute gives them the power to exact. The fact that conditions restricting the fare within the municipality are imposed in a franchise does not deprive the Legislature of the supreme power to determine what conditions shall be imposed upon a street railroad corporation.

* * *

We are therefore of the opinion that notwithstanding the conditions in the several franchises granted to the Huntington Railroad, which attempted to fix a 5-cent fare within certain specified territory, the same was binding upon the company until such time as the Legislature should intervene for the purpose of regulating this fare, and that this commission has the power under the provisions of the law which created it to revise the fare fixed in the franchises.

Commissioner Van Santvoord

It is and always must be the Legislature which exercises final authority in regulating rates and fares; and authority delegated to a municipality to exercise this purely legislative function must be considered as forever subject to recall or modification by the final law-making power.

Commissioner Emmet

Our first duty is to the public. * * * In cases which involve the nullification of rate agreements that were supposed, when made, to be absolutely binding upon both parties, I think it must appear that substantial benefits will result to the public from the granting of the relief sought—or, rather, that substantial injury will be suffered by the public if relief is withheld, before we can act favorably on these applications against the protest of one of the parties to the bargain.

Commissioner Irvine

The result of such a bargain is merely a contract between the parties thereto, subject to be modified or annulled by the State in the exercise of its police power.

Commissioner Barhite

(Quoting an Illinois decision.) "The general rule is that a railroad company is a quasi-public corporation and under peculiar obligation to the public, and that consequently it cannot make any contract which will disable it from performing its public functions."

First District

Commissioner Whitney

It cannot be gainsaid that the disposition of the New York courts has been to uphold the view that the Legislature has made the commission a repository of the legislative power, the Legislature's agent for the expert ascertainment and enforcement of reasonable rate standards, empowered thus to supersede for good cause shown a rate once fixed by the Legislature itself. The tendency has been to look upon the language of the various statutes as warrant for the paramountcy of the commission's expert findings over lower or higher rates fixed casually by the Legislature.

* * *

Powers possessed by the Legislature may be delegated by it to a municipality, a commission or any other creature of the State. * * * This rule governs all situations as to which the Constitution has vested the legislative power exclusively in the Legislature.

* * *

An essentially different situation arises, however, where, as in New York, the legislative power with respect to the use of public streets by a street railroad is restricted by a constitutional requirement, and the legislative power possessed by the municipality to grant, withhold or fix terms for its consent to such use is derived not from the Legislature but from the Constitution.

* * *

When the Constitution provides (as in New York State) that no street railroad shall be constructed or operated along a public street without the consent of the local authorities of that city or village, the legislative power as to the granting or withholding of that "consent," as to the fixing of the terms thereof, is, *by the Constitution*, vested not in the Legislature but in the municipality, and the power of the Legislature is to that extent qualified and limited.

* * *

To construe the Public Service Commission Law to vest this commission with power to increase above the franchise maximum rates fixed by contract between a municipality and a street railroad corporation in the exercise of the constitutional requirement of the city's consent, would be to construe the Public Service Commission Law to be to that extent unconstitutional.

* * *

I reach the conclusion that the rule, better supported by reason and by authority, vests the commission with no power to sanction and put in effect a 7-cent rate on the lines of the petitioner in the absence of proof of the consenting action of the city authorities.

* * *

It should perhaps also be emphasized that we are not here dealing with the question of public policy whether the commission ought or ought not to be vested with the power to advance the rates of the petitioner without the acquiescence of the city. That question of public policy is, or was, a matter for the people to decide, not the commission."

Commission-Made Rates Are Paramount

Second District Commission in New York Has Laid Down Principle That It Has Full Power to Increase Rates in Spite of Maximum Set by Old Laws or Local Franchises

BY THOMAS CONWAY, JR.

Professor of Finance, Wharton School of Finance and Commerce, University of Pennsylvania

THE decision of the Public Service Commission for the Second District of New York, in the Huntington Railroad case,* marks an epoch in the career of this commission. Indeed, there can be no doubt that it is one of the most important decisions which this body has ever rendered. Judged solely from the standpoint of the size of the petitioning company, this case is relatively unimportant. The Huntington Railroad is an electric line running across Long Island from Huntington Harbor, on Long Island Sound, to Amityville, on the South Shore, passing through Melville, Huntington, Farmingdale and a number of other towns in Huntington and Babylon counties. The entire capital stock of this road is owned by the Long Island Railroad. Its reproduction value, as shown by the evidence presented to the commission, is in the neighborhood of \$528,000. Commissioner Carr stated in his opinion: "During this period (1910 to 1916, inclusive) the company has earned \$338,840. Its operating expenses and taxes have amounted to \$22,798 more than the revenue, and so there is nothing available for interest on bonds, dividends on stock, or reservation for surplus and contingencies, to say nothing of a return upon the value of the property employed in the public service."

CASE SETS FORTH PRINCIPLES OF RATE-MAKING

The significance of the decision arises out of the fact that the case is, by the express terms of the opinion, to constitute a leading one, setting forth the general principles which the commission will follow in dealing with other petitions for increased fares.

Each of the five members of the commission prepared an opinion. The text of these opinions constitute eighty-two printed pages. The opinion which, as stated by the chairman, constitutes the opinion of the commission in the case, was prepared by Commissioner Carr and covers fifty-nine pages. Each of his four associates concurred in the findings set forth, although every member felt constrained, because of the importance of the issue, to express his individual views. The decision of the commission is unanimous, although, as is frequently the case with epochal decisions, the reasoning by which the several members of the body reached their conclusions shows considerable dissimilarity.

The purpose of this article is to endeavor to reflect the views of the several members of the commission upon the general questions presented and the principles laid down by them. In order to facilitate the discussion of the opinion, each phase will be taken up separately, although this plan is not followed in the opinions themselves.

Before the case of the Huntington Railroad could be judged upon its merits, the commission had to decide two legal questions, both of which concerned its power to permit an electric railway to charge a rate of fare in excess of 5 cents. The first question related to the effect of Section 181 of the Railroad Law, which prescribes the rate of fare to be charged within the limit of any city or village. This section provides that no electric railway "shall charge any passenger more than 5 cents for one continuous ride from any point on its road. . . . to any other point thereof, or any connecting branch thereof, within the limits of any incorporated city or village." The section further provides that "the Legislature expressly reserves the right to regulate and reduce the rate of fare of any railroad constructed or operated wholly or in part under such chapter [meaning the act of May 6, 1884] or under the provision of this article; and the Public Service Commission shall possess the same power, to be exercised as prescribed in the Public Service Commission Law."

REVIEW OF OLD LEGISLATION

The act of 1884 referred to above was the first general act passed by the Legislature of New York relative to electric railways. Prior to that time the practice had been to incorporate companies by special acts of the Legislature. Commissioner Carr's opinion reviews in great detail the provisions of these acts. He points out that the Legislature had not hesitated in this special legislation to amend the acts constituting the charters of the several corporations, with reference to not only matters concerning operation, but also the provisions relating to fares. Mr. Carr finds that prior to 1884 no specific provision had been made in the general railroad law to cover the rate of fare within a municipality, except as it might be claimed that it was covered by Subdivision 9 of Section 28 of the laws of 1850, wherein it was stated that the fare for passengers should not exceed 3 cents per mile. Section 33 of that same act also provided that the Legislature might, from time to time, after a railroad completed thereunder was opened for use, alter or reduce the rate of freight, fare or other profits upon such road, but that the same should not be reduced without the consent of the company, so as to make such profits less than 10 per cent upon the capital actually expended.

The act of 1884 set forth the method for incorporating an electric railway and what was necessary to be done in order to entitle it to construct, maintain and operate its road. Section 4 required the company to secure the consent of the local authorities—which requirement carried out the provision of the State Constitution. "The consent of the local authorities shall in all cases be applied for in writing, and when granted

*Preliminary abstract of legal points appeared in the ELECTRIC RAILWAY JOURNAL of Nov. 24, 1917.

shall be upon the express condition that the provisions of this act pertinent thereto, shall be complied with and shall be filed in the office of the county clerk of the county in which said railroad is located." The act further provided that franchises should be sold at public auction; that local authorities had a right to require as a condition of their consent that the electric railways should pay a certain percentage of its gross receipts, not exceeding 3 per cent, into the treasury of the city or village. The municipality could require the company to pave between and outside of its tracks.

Section 13 of the act provided in substance that an electric railway should not charge more than 5 cents for one continuous ride within the limits of any incorporated city or village. It provided, however, that "this section shall not be construed to apply to any part of any road heretofore constructed and now in operation, unless such company shall acquire the right to extend such road or to construct branches thereof under the provisions of this act, in which event its rate of fare shall not exceed its authorized rates prior to such extension." There was no provision in Section 13 of the act of 1884 to the effect that the Legislature reserved the right to alter or reduce the rate of fare therein provided, although there was a general reservation of the right to alter, amend or repeal the act. In 1886 the Legislature, however, amended the law, adding to Section 13 of the act of 1884 the following clause: "The Legislature expressly reserves the right to regulate and reduce the rate of fare on said railroad or railway." The act of 1884 as amended was repealed with the enactment of another general railroad act known as Chapter 565 of the laws of 1890. Section 101 of this act related to the matter of rates of fare and was substantially the same as Section 13 of the act of 1884 as amended by the acts of 1886, except that the provision restricting the 5-cent fare to the area within the limits of any incorporated city or village had been omitted. This omission was short-lived, for in 1892 the Legislature enacted Chapter 676 amending the Railroad Law and adding to Section 101 thereof the proviso that no more than a 5-cent fare shall be charged within the limits of any incorporated city or village.

CHANGES ARISING UNDER PUBLIC SERVICE COMMISSION LAW

With the passage of the Public Service Commission Law it became necessary to again amend the Railroad Law. The revision constituted Chapter 181 of the laws of 1910, or Chapter 49 of the Consolidated Laws. In so far as rates of fare of electric railways were concerned, Section 181 of the new act heretofore amended was substantially the same as Section 101 of the act of 1892, except that there had been added the provision that the right of the Legislature expressly reserved to regulate and reduce the rate of fare was possessed by the Public Service Commission, to be exercised by it as prescribed in the Public Service Commission Law. Commissioner Carr observes: "So we see that Section 181 of the Railroad Law as it exists to-day is substantially the same as the act which was passed in 1884, as far as the requirement relative to a 5-cent fare within an incorporated city or village is concerned."

The legislative injunction that the commission in exercising its power "to regulate and reduce fares" must do so in accordance with the provisions of the Public

Service Commission Law, led the commission to examine the provision of that law which would govern in the present proceeding. The opinion calls attention to Sections 33, 49 and 50. These sections permit the commission to prescribe just and reasonable maximum rates for all forms of reduced rates of passenger tickets of steam railroads and electric railways, authorize the commission to investigate the regulations, practices, equipment and appliances of an electric railway and to determine and enforce reasonable, safe and adequate standards of service and equipment, and authorize the commission to order changes and improvements in road and equipment, and additions thereto, if in its judgment the same are necessary to promote the security or convenience of the public or employees, or in order to secure adequate service or facilities for the transportation of persons or property. Section 49 provides that whenever the commission shall be of the opinion that the maximum rates, fares or charges chargeable by any such railroad or electric railway corporation are insufficient to yield reasonable compensation for the service rendered and are unjust and unreasonable, the commission shall determine the just and reasonable rates, fares and charges to be thereafter observed and in force as the maximum to be charged for the service to be performed notwithstanding that a higher rate, fare or charge has been heretofore authorized by statute.

COMMISSION HAS FULL RATE-MAKING POWER

After stating the provisions of the law, Mr. Carr says:

"What was the purpose of these sections giving such drastic powers to the commission and authorizing it to place heavy burdens on the electric railways, unless the commission was at the same time authorized to give such relief in the way of increased fares as might be necessary to enable the corporation to receive a fair return on the increased investment made necessary by the orders of the commission? It cannot be successfully urged that the commission has the right to order such improvements in service and equipment as might be necessary for the safety of the traveling public, even though this action on its part might in effect operate to confiscate the property of the corporation, for this is contrary to the law of the land. What then does the law contemplate in this respect? The answer is, that the commission is empowered to require the corporation to give proper service; and, on the other hand, to require the public to pay reasonable rates for such service. The law as it exists at the present time requires the commission to determine the just and reasonable rates which will enable electric railways to earn a reasonable return upon the value of the property actually employed in the public service and to provide a reserve for surplus and contingencies."

Mr. Carr's opinion reviews in detail the decisions of the courts of the United States and of the State of New York relating to the power of the Legislature to regulate and fix fares and of its creature, the Public Service Commission, to exercise similar powers, by virtue of a delegation of legislative power by the Public Service Commission Law. The apparent conflicts of judicial interpretation of the statutes are carefully analyzed, and the conclusion reached is this:

"We are not left in doubt as to the power of the

commission to deal with the question of the fare on electric railways, that having been made clear in the statute itself, but we do think the reasoning in the Ulster & Delaware Company case applies with equal force here, *viz.*: that the statutory rate fixed by the Legislature is the one binding upon the railroad company until such time as it is changed either by the Legislature or the commission, and that therefore the commission can increase this rate if it determines that a fare of 5 cents is unjust or unreasonable to the corporation."

FRANCHISE RESTRICTION NOT CONTROLLING

The second major question which confronted the commission concerned the provisions of the franchise defining the rates of fare to be charged by the carrier. It will be remembered that the several acts of the Legislature, hereinbefore mentioned, provided that an electric railway must secure the consent of the several municipalities to the construction of its lines and that "the consent of the local authorities shall in all cases be applied for in writing, and when granted shall be upon the express condition that the provision of this act pertinent thereto shall be complied with, and shall be filed in the office of the county clerk of the county in which said railroad is located."

The Huntington Railroad had been forced to enter into stringent bargains with the various villages through which it operated. Provisions were inserted in the franchises granted by the town of Huntington, by the County of Nassau, by the village of Farmingdale, by the town of Babylon and by the village of Amityville, restricting the rate of fare to 5 cents per zone and defining in great detail the precise limits of each zone. In several cases the company was required to furnish a bond in a substantial amount. These agreements provided that they were to extend to the company and its successors, and in several cases that a violation should work a forfeiture of the franchise. As Mr. Carr observed at the time the case was tried, it would be almost impossible to find a company with more stringent franchise provisions concerning the rate of fare which it could charge.

The communities through which the Huntington Railroad operated, in inserting stipulations concerning the rate of fare, were following a practice which was quite general throughout the State of New York. The question which the commission had before it was whether it possessed the power to raise rates above 5 cents in the face of such franchise provisions. The opinion of the commission reviews at great length the decisions heretofore rendered by the courts of New York State concerning the effect of franchise conditions upon the utility and upon the power of the commission to raise fares above the rate specified. The opinion states:

"We believe that all of the cases dealing with fare conditions in franchises can be harmonized without difficulty. It will be remembered that beginning with the act of 1884 relating to electric railways there was and has been a specific provision in the law requiring the consent given by the municipality to contain a clause setting forth that it is given upon the express condition that the provisions of the act relative to such railroads shall be complied with. Therefore, even though the municipality should give its consent to the

construction, maintenance and operation of an electric railroad in the public streets without attempting to set forth the condition in the franchise relative to fare which is contained in the statute, nevertheless the provision of the statute is binding upon the corporation, and no greater force or effect is given to it and no greater obligation is placed upon it than that which appears in the statute in this respect. The mere reiteration of this condition in the franchise given by the municipality does not place an additional burden upon the corporation, nor does it operate to divest the State of any power which it may have and which it has always had to regulate the fares on electric railways.

"Some of the franchises involved in the present case, as well as others which have been brought to the attention of the commission in similar cases, use almost verbatim the words of the statute with respect to the 5-cent fare, and we think that, notwithstanding this provision has been embodied in a written agreement between a municipality and an electric railway corporation, it only remains in full force and effect as against the State so long as the Legislature or the commission takes no action in regard to the increase or reduction of such fare. Certainly the fact that such a provision was contained in an agreement between the parties could not operate to deprive the State of its sovereign rights without its consent as evidenced through some act of the Legislature."

At another place the opinion says:

"In view of the numerous decisions from which we have quoted at length, we think it is settled beyond question that municipalities have no right to impose conditions in franchises other than those which the statute gives them the power to exact. The fact that conditions restricting the fare within the municipality are imposed in a franchise does not deprive the Legislature of the supreme power to determine what conditions shall be imposed upon an electric railway corporation. There is no decision in any of the courts of this State which attempts to hold that the Legislature in the enactment of general laws governing the creation and operation of railroads, whether street surface or otherwise, has in any respect conferred upon the municipalities the power to fix a rate of fare in a specific amount. It has delegated the power at different times to fix maximum rates, but this was always subject to the right of the Legislature to intervene and revise and alter such rates as might be fixed under the delegated power."

In concluding his exhaustive discussion, Mr. Carr observes:

"The courts are unanimous in holding that the fixing of rates is a part of the police powers of the State and nation, and that public service corporations are entitled as a matter of right to be permitted to charge such rates as will fairly compensate them for the service rendered. We have therefore determined that the commission has power to grant an increase in the rates charged by the Huntington Railroad in the villages and towns in which it operates, notwithstanding the franchise restrictions as to fare and the provisions of Section 181 of the Railroad Law."

The commission was unanimous in its support of Mr. Carr's opinion. Each of the other members of the commission, however, felt constrained to express his individual views. Judge Barhite set forth in his opinion

numerous decisions not cited by Mr. Carr, handed down by the Supreme Court of the United States and by courts of other states, supporting the position which the commission had taken. Chairman Van Santvoord, in one of his characteristic opinions, set forth his views as to the legal principles which should prevail. He protested that it was "a shock to be told that a contract as to rates of transportation solemnly entered into between a carrier and a municipality and deliberately accepted by the former as a consideration exacted for its right to exist at all . . . is absolutely void." Judge Irvine expressed a similar feeling. They both agreed, however, that such a contract was binding until modified or abrogated, either by mutual consent or by the exercise of the legislative function, either through an act of the Legislature itself or by the Public Service Commission under a delegation of authority.

Chairman Van Santvoord went on to observe:

"I believe that upon reflection this conclusion is bound to receive the larger measure of commendation. Because if these contract and franchise restrictions as to rates are considered void as being against public policy because of the inherent possibility that some day they may incidentally result either in bankruptcy of the enterprise or serious impairment of the service, to the resultant loss or disadvantage of the public, why should not the same reasoning apply to service contracts between lighting companies and municipalities—or, for that matter, between such corporations and their large consumers—or such corporations *inter se*?"

OTHER VIEWS OF THE ASSENTING COMMISSIONERS

Commissioner Emmet, after expressing satisfaction with the reasoning of Mr. Carr and Judge Barhite's opinion, pointed out the implications of the policy which the commission has adopted. He well says: "If the disposition we are making of this case shall be held upon appeal to be a lawful one, it will follow, I suppose—and with efficient state regulation of rates it certainly ought to follow—that conditions of the kind we are here considering, fixing the fares which shall be charged, will no longer be written into electric railway franchises."

Mr. Irvine apparently felt it was necessary to sound a word of warning to public utility operators, in order that they should not overestimate the power and willingness of the commission to set aside franchise provisions. He stated:

"It is to be hoped that our decision in this matter will not be taken as an indication that, in respect to matters which may properly be bargained about in connection with the granting of a franchise, the commission has in anywise lost faith in the time-honored rule that a bargain is a bargain, even when one of the contracting parties happens to be a public utility. It would be unfortunate if promoters of new enterprises should feel that hereafter when seeking franchises they may safely agree to almost anything that is asked of them by local boards, without any real intention on their part of carrying out these agreements if they can induce this commission to relieve them of their obligations upon the mere showing that their profits have not been quite as large as they ought to have been.

"However complete the commission's jurisdiction may be, it seems to me that in cases where we are asked to set aside franchise conditions that have pre-

viously been accepted by the applicant, our first duty is to the public, and it would in my opinion be a violation of this duty for the commission to use its powers primarily or exclusively for the relief of private investors who voluntarily accepted stiff conditions in order that they might go into a business from which they expected to derive large profits, and who have since suffered some disappointment in their original expectations. In cases which involve the nullification of rate agreements that were supposed, when they were made, to be absolutely binding on both parties, I think it must appear that substantial benefits will result to the public from the granting of the relief that is sought—or, rather, that substantial injury will be suffered by the public if relief is withheld—before we can act favorably on these applications against the protest of one of the parties to the bargain."

Accounts Not Shrouded in Mystery

IN ANSWER to a newspaper assertion that the financial condition of the Detroit (Mich.) United Railway is "shrouded in mystery," the company has published in

Electric Railway Service, its car bulletin, a detailed, clear-cut description of its accounting procedure under I. C. C. classifications. Furthermore, it used, as an announcement of this, the poster shown in the accompanying illustration.

Many people in some localities probably still believe that corporation books are kept wrongfully; that statements regarding the financial conditions of the properties are not based

upon official accounts. For the purpose of combatting such impressions the publication of the fundamentals in the accounting regulations under which the companies work is doubtless of much value.

THE ACCOUNTS of the D. U. R. are KEPT EXACTLY AS THE LAW DIRECTS

There is nothing "shrouded in mystery" about them---
They are clear, clean and honest and under Government supervision.

ELECTRIC RAILWAY SERVICE

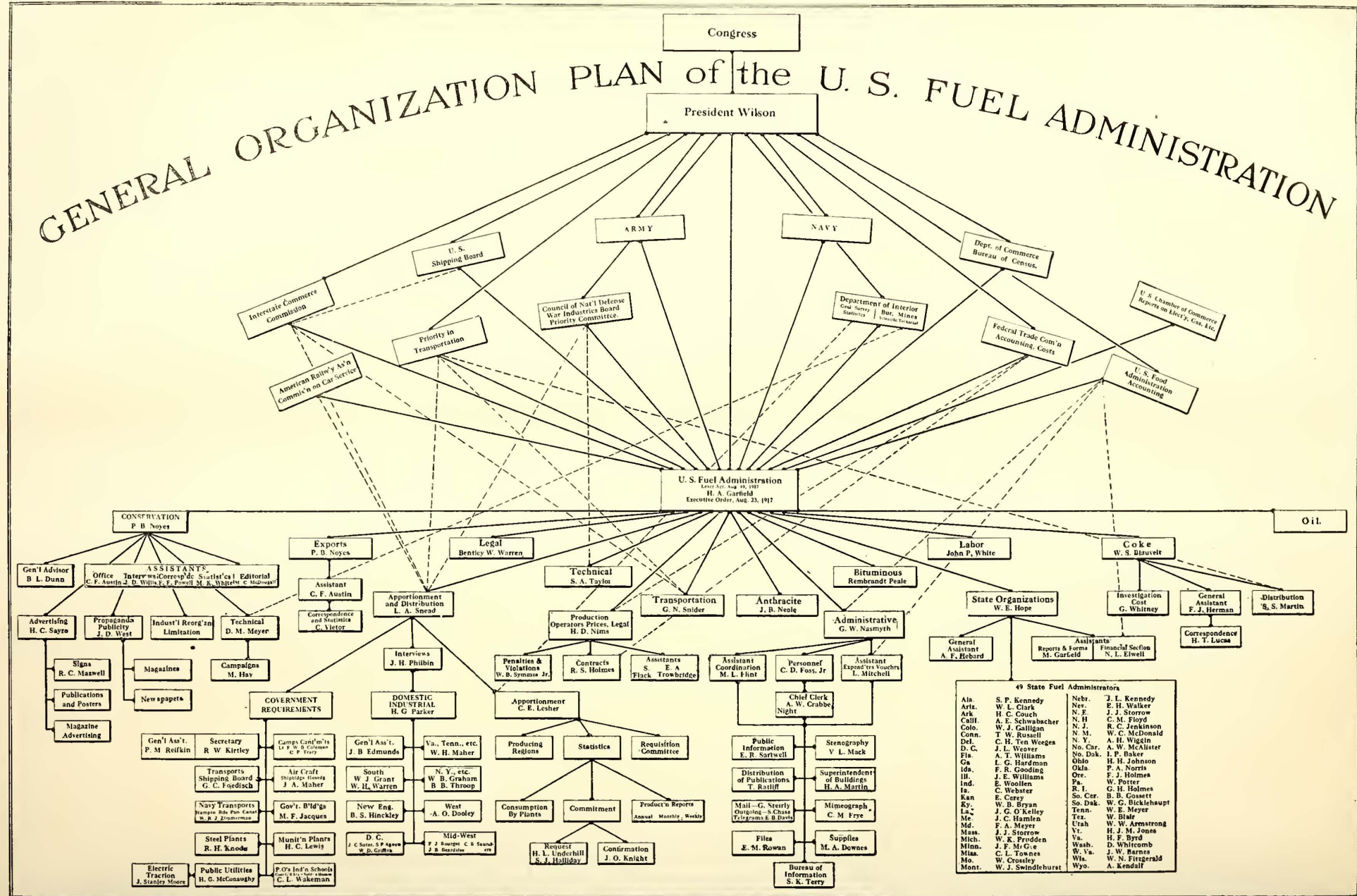
issued Friday Jan. 11

Describes the book-keeping system.

Efforts to Secure Uniform Boiler Laws

THE American Uniform Boiler Law Society, of which Thomas E. Durban, Erie, Pa., is chairman, is continuing actively to urge the legal adoption of the boiler code of the American Society of Mechanical Engineers. The code has been adopted in California, Indiana, Massachusetts, Michigan, Minnesota, New Jersey, New York, Pennsylvania and Wisconsin. The Boiler Law Society hopes to secure favorable action by the nine state legislatures that are to meet this year. Different plans are being followed in these several states, and the society will appreciate co-operation on the part of electric railway men in securing recognition of this code by legislatures.

GENERAL ORGANIZATION PLAN of the U. S. FUEL ADMINISTRATION



This diagram is the first of its kind to be published and has been made up from information obtained in Washington from the Fuel Administration. It is up to date and should be of interest and assistance to electric railway companies in the present fuel stringency, especially in view of the sweeping order on fuel conservation issued on Jan. 17.

Fuel Conservation and Operating Economies

Two Important Documents Are Reproduced as Typical of What Is Being Promulgated in All Parts of the Country

THE office of the ELECTRIC RAILWAY JOURNAL continues to be flooded with reports of efforts in the line of conservation. Space limitations this week preclude the publication of more than two typical examples.

New York Fuel Conservation Committee Formulates Recommendations

The fuel conservation committee for the electric railways of the Second Public Service District has prepared resolutions as requested by the Public Service Commission for this district. The resolutions follow:

1. *Heating of Cars*: As the amount of current necessary for heating is, in most cases, some 30 per cent of that required for the operation of the car, it is recommended to the different operating companies that the heat be shut off during rush hours, morning and evening, on all cars in service, and that the heat be reduced on cars in non-rush hour service, excepting under extremely severe weather conditions.

It is impracticable to comply with the above suggestions in cases of cars heated by other than electric heaters, but economies in the use of coal in these cases could be effected by a more efficient operation of heaters and a closer supervision of their use.

2. *Lighting of Cars*: It is further recommended that the amount of current now used for properly lighting cars be reduced 50 per cent.

3. *General Lighting*: It is recommended that the general illumination of carhouses, yards, rights-of-way, etc., be reduced to the minimum consistent with safety of operation.

4. *Sale of Power*: It is recommended that the sale of power by railway companies for other than railway or other purposes essential to the winning of the war be discontinued where possible.

5. *Consolidation of Power Plants*: It is the belief of the committee that few if any situations exist where consolidation or paralleling of power houses would result in fuel economies.

It is, however, recommended that local conditions be studied by each company, and when economies can be made that arrangements for doing so be perfected.

6. *Stops*: Realizing that large economies in power would be effected by a reduction of the number of stops per mile made by all cars, it is recommended that the local conditions surrounding the operation of each company be most carefully studied with a view to eliminating all possible non-essential stops. Consideration of the skip and stagger-stop systems in this connection is recommended.

7. *Service*: This committee realizes the inconvenience to the public which will be occasioned by a reduction in service, and feels that all service reductions should, as far as possible, be confined to non-rush hours.

With this in mind, and appreciating the grave ne-

cessity of material reductions in order to meet the emergency fuel conditions, brought about by the war, it is recommended that the possibilities of service reductions be most seriously studied and schedules reduced or rearranged in such manner as to accomplish substantial savings with the least possible inconvenience to the public.

8. *Co-operation of Employees*: It is recommended that each company which has not already done so adopt the recommendations of the American Electric Railway Association's War Board and secure, so far as possible, definite pledges from its employees to aid in the fuel conservation movement by every means in their power.

COMMITTEE ON FUEL CONSERVATION,
H. B. Weatherwax, Chairman; J. F. Hamilton,
J. P. Barnes, W. M. Collins,
W. J. Harvie, C. R. Barnes, ex officio.

[NOTE.—Possibly Clause 4 will now require change in view of the fact that the order of the Fuel Administrator on Jan. 17 makes no discrimination between industries which are essential and non-essential for winning the war in the Monday closing rule.—EDS.]

Connecticut Commission Recommendations Were Effective Jan. 15

Henry F. Billings, secretary Public Utilities Commission, State of Connecticut, has sent to the electric railways of the state a circular letter containing recommendations on fuel economy. They were asked to report on the matter on Tuesday of this week. The letter is referred to briefly in the War Board bulletin abstracted on the Association News page in this issue. The full text of the letter follows.

At this time when every vital energy should be so conserved and regulated as to minimize waste and produce maximum efficiency in meeting the necessary demands of our social, industrial and national life, and prove a potent factor in our first and paramount duty of "winning the war," it is opportune to consider street railway transportation and operation, with a view to making more effective its energies to that end.

Street railways are important agencies, not only for the transportation of passengers, but also in the handling of freight. The abnormal industrial development and demands for all kinds of transportation, upon street railway companies as well as steam railroads, has created a condition which the street railway companies, with their limited facilities, are unable to meet successfully, and which calls for unusual and special methods of treatment.

In the large industrial centers of Connecticut, as Bridgeport, New Haven, Waterbury and Hartford, manufacturing government supplies in the factories, employing thousands of men requiring transportation to and from their work at the same time, it is necessary that some system of co-operation be maintained between the transportation company and the factories and their employees whereby traffic may be best facilitated.

From a recent letter issued by the Board of Public Utility Commissioners of the state of New Jersey we quote: "As the industrial plants must have more men than ever, and as it will be impossible for the railways to carry them all practically at one time, it would seem that the problem would have to be solved by an arrangement which would necessitate some readjustment of the working periods in

the shops and shipyards so that all would not start and stop at virtually the same time or within the same hours."

The street railways of Connecticut have about 6000 employees and use about 200,000 tons of coal per annum. Never in the history of this country has there been so great a demand for labor and never so great a necessity for carefully utilizing every ounce of man power. It is of the utmost importance that the energies of these employees be carefully directed in the lines of work most essential at this time, and that the spirit of patriotism augment the efforts of the employees to meet every reasonable demand and emergency.

The necessity for the conservation of fuel and its application to street railways is forcibly expressed by the Federal Fuel Administration in its General Letter No. 18, dated Dec. 1, 1917, from which the following is quoted: "An investigation convinces us that electric railways offer a chance for large savings, particularly through reductions in schedules. We are not suggesting changes in railway schedules which will seriously inconvenience the public, but it is a well-known fact that the pressure of private interests has, in many instances, led the electric railways to provide cars and service which represent a wastage that should be prevented in time of scarcity. . . . We would like to add that all of these companies should be urged to renewed vigilance in the matter of scientific economy in firing their power plants and the cutting off of every kind of leakage and wastage, especially in their transmission system."

Economy should be the watchword and the best possible efficiency consistent with wise economy the purpose which with united patriotic effort will contribute to the nation's success in prosecuting the war.

Patrons of street railways in Connecticut have been remarkably patient with the inadequate service rendered in recent years by companies struggling with only mediocre success to meet the unusual demands made upon them. The best results that may be expected at this time, however, require not only a continuation of that patience but an interested co-operation, with possible readjustment of hours of travel, even at some personal sacrifice. Those who can, should arrange to travel during the hours of normal traffic, and avoid adding to the necessary congestion during the so-called "rush hours" when factory and mercantile employees are obliged to go to and from their work. If it should become necessary or advisable to eliminate certain mid-day schedules as suggested by the Fuel Administration, the hours of travel would have to be adjusted to conform to the revised schedules.

The officials of the street railway companies should be the best qualified to analyze and determine what methods can be inaugurated to meet the economic demands without unnecessary inconvenience to the traveling public or seriously curtailing transportation facilities. We therefore recommend:

1. That the attention of mercantile, manufacturing and industrial institutions be directed to the necessity of co-operation in an effort to bring about a more even distribution of traffic, and a general improvement in transportation facilities.

2. That the attention of motormen and conductors be called to the patriotic duty of saving current and fuel and that their co-operation be enlisted by pledge cards or such other method as may be deemed most advisable.

3. That the officials of all street railway companies in the State make a careful study of the general situation under present war time conditions and put into effect such methods as will more effectively conserve fuel and economize in all labor and material consistent with reasonable service.

4. That each street railway company in the State report to this commission on or before Jan. 15, 1918, the results of its investigation in these matters, and the methods, if any, inaugurated or about to be inaugurated in the interests of fuel and other economic conservation.

Government Requisitions Niagara Power

The United States government has requisitioned electric power generated by the Niagara Falls Company, Hydraulic Power Company of Niagara Falls, and Cliff Electrical Distributing Company. Approximately 110 factories now working on war contracts will curtail their electric power requirements and substitute steam for electricity. About 100,000 hp. more will be imported from Canadian plants to be exclusively used for war purposes.

LETTERS TO THE EDITOR

Another Advocate of the Company Section

THE CONNECTICUT COMPANY,
NEW HAVEN, CONN., Jan. 16, 1918.

TO THE EDITORS:

I have noted with interest the letters from the presidents of the Toledo Railways & Light Company and the Elevated Railroads of Chicago which the ELECTRIC RAILWAY JOURNAL has printed recently. As president of another company which has an active and efficient section I take pleasure in adding my testimony as to the importance of this agency for the welfare of employees and the railway companies themselves. It seems to me at the present time that the importance of company section organizations on electric railway properties is greater than at any time in the history of the industry.

By reason of the abnormal conditions surrounding all branches of nationwide activity, the importance of the transportation utility is becoming more apparent, not only to those engaged in the industry, but to the public and administration officers of the government. For this reason we are being called upon more and more to become an efficient aid in the conduct of affairs, and it is necessary to disseminate through the rank and file of the organization information which is being received and demands which are being made upon the electric railway industry.

Without any question the best method of accomplishing these results is through the medium of the company section. The last two or three of our meetings, which have been reported in the columns of the JOURNAL, have been illustrative of the educational value of the organization. Last night's meeting, at which Dr. Thomas Conway, Jr., explained to our men the serious nature of the economic problems confronting the electric railway, was typical of what can be done at these meetings.*

L. S. STORRS, President.

Signals Operated at High Speed

NACHOD SIGNAL COMPANY, INC.

LOUISVILLE, Jan. 8, 1918.

TO THE EDITORS:

In your issue of Dec. 22, 1917, page 1128, the statement is made:

"While electric railway signals operated by overhead contactors placed on the trolley wire give excellent protection on lines where the cars are operated at moderate and low speeds, reliance cannot be placed upon the overhead contactors to operate properly at high speeds."

We infer that a failure to operate reliably at high speed refers to a particular manufacturer's type of contactor signals, although it is not so stated. The Nachod Signal Company has had trolley contact signals in service for several years on interurban lines throughout this country, at speeds of 60 m.p.h., and their operation has always been considered satisfactory.

CARL P. NACHOD, President.

*See page 141 in this issue for a brief report of the meeting referred to by Mr. Storrs.—Eds.

Mobilization of Machine Tools for Big Gun Manufacture

Government Faces Shortage in Facilities for Manufacture of Heavy Field Artillery Essential to 1918 Campaign

ELECTRIC railway operators and manufacturers of electric railway equipment who can by any possibility release machine tools which can be used in big gun making are urged by the Council of National Defense to do so without delay. The serious fact is that the government is short of heavy field artillery and there is no possibility of producing these guns without machine tools. Enough of these tools are not available and the machine tool makers cannot produce them in time for use in making guns for the 1918 campaign. It is believed, however, that there are in the country, in shops of all kinds, many tools which could be utilized to better advantage in gun manufacture than upon the work on which they are now engaged. Undoubtedly many tools are being inefficiently used where they are. The government wants these and the Council appeals to the owners to sell or rent them to the government for the period of the war.

Readers of the *ELECTRIC RAILWAY JOURNAL* may be able to help in this emergency either by furnishing tools themselves or by bringing this appeal to the attention of machine shop operators in their acquaintance.

Information regarding available tools should be written or wired to Machine Tool Section of the War Industries Board, Council of National Defense, Washington, D. C.

The essential character of heavy field artillery in relation to assaults is indicated by the following facts. When

heavy artillery is not available to clear the way, to shatter the enemy's defenses, to drive such men as remain deep into the ground shelters, to make a veritable inferno of the region to be captured, the loss in life in the assaulting columns runs up to 40 and 60 per cent. With sufficient artillery preparation, with the front cleared by thousands of high-explosive shells which leave no stone unturned—which tear great craters in the fields and wipe out all traces of opposition—the loss is reduced to but 3 to 5 per cent.

It is not necessary at this time to go into the question of why we are short of guns and tools. The shortage is a fact and it remains merely to decide whether it is better to make some sacrifice now or to be treated as Belgium and other violated countries have been treated. No individual or group of individuals can determine where the needed tools are and which ones can be spared. Even if this knowledge were available the government would not wish to commandeer a single machine and does not believe that it would be necessary. Voluntary co-operation should suffice. It is true that the electric railways have been hard hit by the war, and further their shops are none too well furnished with heavy tools. If the whole industry, however, can furnish even a few planers, boring mills, milling machines and lathes it will have done something to save the lives of the boys at the front. Time is at a premium in this matter.

The MACHINES Needed

- 60- x 60-in. x 20-ft. planing machines.
- 48- x 48-in. x 20-ft. planing machines.
- 36- x 36-in. x 14-ft. planing machines.
- Nos. 4 and 5 plain milling machines.
- Nos. 4 and 5 vertical milling machines.
- 30-in. x 20-ft. engine lathes.
- 36-in. x 20-ft. engine lathes.
- 4- and 5-ft. radial drilling machines.
- 18- x 130-in. cylindrical grinding machines.
- 10-ft. vertical boring mills.
- 5-ft. vertical boring mills.
- 6-in. floor type, horizontal boring and milling machines.
- 4-in. floor type, horizontal boring and milling machines.

How the Fuel Order Affects the Electric Railways

THE essential nature to the public of electric railway service is recognized in the federal fuel order of Jan. 17, whose purpose is stated to be "to make provision for a more adequate supply of fuel for railroads, domestic consumers, *public utilities*, and for other uses necessary to the national security in certain parts of the United States." The following sections of the order relate particularly to electric railways:

SECTION 4. On each Monday, beginning Jan. 21, 1918, and continuing up to and including Monday, March 25, 1918, no fuel shall be burned (except to such extent as is essential to prevent injury to property from freezing) for the purpose of supplying heat for:

(a) Any business or professional offices, except offices used by the United States, State, county, or municipal Governments, transportation companies, public utility company, telephone or telegraph companies, banks, trust companies, physicians, or dentists.

SECTION 6. No fuel shall be burned on any of the Mondays specified in the foregoing section for the purpose of supplying power for the movement of surface, elevated, subway, or suburban cars or trains in excess of the amount used on the previous Sunday.

SECTION 9. This regulation is effective throughout the United States east of the Mississippi River, including the whole of the States of Louisiana and Minnesota.

Peter Witt Reports on Trenton

He Recommends Purchase of Fifty One-Man Cars, Introduction of Fare Boxes, Better Maintenance, Purchase of Power and a Number of Service Changes

PETER WITT, formerly street railway commissioner of Cleveland, was recently engaged by the City Commission of Trenton, N. J., to report on the electric railway situation in that city. The report, which was submitted on Jan. 12, recommends, briefly, the purchase of fifty one-man cars, introduction of fare boxes, better maintenance, purchase instead of generation of power, reduction of service on some lines and increase on others and a certain amount of rerouting. For the city the suggestions include better repair and policing of the streets as regards blockades and the erection of certain shelter stations. The car rider is enjoined to move quickly and not to knock.

In the introduction of his report, Mr. Witt comments on the small amount of riding in Trenton. He says that Trenton is a live, progressive, growing city with a population of 125,000, yet the record for 1916 shows rides per capita of only 155. This is a very low figure compared with other cities of the same size, and to increase it is the first thing that needs attention. To do it, he says, calls for heroic treatment, first by the traction officials in making effort as they never made before; secondly, through the assistance of the municipal authorities in the enactment of helpful measures; and last, but not least, by the needed and willing co-operation of the car riders.

MORE CARS AND BETTER SHOPS NEEDED

Mr. Witt finds the double-truck cars too large and heavy for base-table operation and the single-truck cars obsolete and altogether too small for peak-load requirements. To operate them at present he considers an economical mistake, producing a financial loss and failing completely of meeting the needs of the car riders. He recommends the substitution of at least fifty modern cars designed for one-man operation and says: "This will permit the running of more cars, the payment of higher wages to the operators, develop the riding habit and produce a larger net for dividends.

"Next, equip all cars with fare boxes. It will please the honest conductor, for automatically through its use he is relieved of financial responsibility; it puts the near honest beyond temptation, prevents stealing by the crook and will put an end to the cheating car rider who now 'beats his way'."

The tools and shop facilities of the company are also considered wholly inadequate to care properly for the equipment operated. The fire department was called out eleven times in the month of December for the purpose of caring for cars on fire, while the "turning in" of cars while in service because unfit for operation causes an annoyance to the rider and a loss to the company which can be avoided if inspection is made before and not after the trouble takes place.

The company, according to the report, should give up making its own power with antiquated methods and purchase the energy it needs from a plant where modern methods and latest devices are used. It should also substitute for its horse-drawn line wagon a motor-driven vehicle. It is speed that counts when the wire

is down. Also this vehicle should carry "hose jumpers."

Some new special work and considerable double tracking was also recommended, but Mr. Witt points out several lines where the service can be reduced and a few which he recommends should be abandoned. The track, poles and wires from these lines can be used for double tracking those lines where two tracks are necessary. Among those lines on which the service can be reduced is that from Trenton to Princeton, where service should be given every two hours instead of every thirty minutes and where the sale of ticket fares at reduced rates should be abandoned.

WHERE THE AUTHORITIES CAN HELP

Mr. Witt also points out the directions where the city authorities can be of great assistance in getting good service. One of these is to help the company so to regulate the issue of transfers that the practice of some car riders of making a round trip for one fare be made impossible. Other suggestions follow:

"Eliminate all useless and needless car stops. It will save the company money in operation and the car rider time in travel.

"If the streets of Trenton were in a poor condition, there might be some justification for the vehicular use of the tracks, but, having well-paved streets, kept in good repair and cleanly maintained makes this nuisance not only one uncalled for, but intolerable to bear. The place for wagons and automobiles is in the space between the curb and the outer rail. The drivers of vehicles should so be taught. It teaching fails to bring the remedy police activity should commence. All vehicles when standing for the purpose of unloading should stand with and not across the street. The 'road hog' with a vehicle so wide that passing becomes impossible should, by legislative action, be exterminated."

The report also points out that electric cars are often delayed unnecessarily at canal bridges and at steam railroad crossings. The city should see that these delays are reduced. Finally, the city should erect attractive shelters for waiting passengers at four important transfer points. The report states that the city can well afford to build these from the money it receives from the company under the present State franchise tax. In conclusion Mr. Witt says:

WHAT THE CAR RIDER CAN DO

"One more word, and my work is done. The many recommendations above made, if favorably received, cannot be carried out in a day; months will be required. In the meantime co-operate. Have your fare ready. Don't stand on the platform of the car and prevent others from getting on when there is room in the middle. When delay has bunched the cars, don't get on the first one; take the second or the third, as the case may be.

"Don't blame the traction company for everything that happens. Don't criticize your public officials for their failure to change conditions which cause you both inconvenience and annoyance, when their inability to act is caused by laws of your creation. Boost as well as knock. Work as well as kick, so when finis in this struggle is finally written, Trenton will have that which it is entitled to, a traction system equal to the best and with a service meeting every want and fulfilling every requirement."

American Association News

War Board Organizes Traffic Bureau and Appoints E. C. Faber as Manager Meeting in Washington on January 11 Board Issues Bulletin No. 6, Which Contains General Suggestions and Report Items

Traffic Bureau Now Organized

E. C. Faber Is Appointed Traffic Manager—Names of Additional Sectional Representatives Are Given

THE Traffic Bureau of the Electric Railway War Board has been completed under the direction of Britton I. Budd, president Elevated Railroads of Chicago, chairman traffic committee. E. C. Faber, general manager Aurora, Elgin & Chicago Railroad, Aurora, Ill., has been appointed traffic manager. His headquarters will be in the Munsey Building, Washington, D. C.

In addition to the names listed on page 1080 of the issue of the *ELECTRIC RAILWAY JOURNAL* for Dec. 15, 1917, the following have been announced:

Northeastern Military District: F. E. Wood, Portland, Me.; Byron T. Burt, Rutland, Vt.

Southeastern Military District: C. S. Allen, Greenville, S. C.; Frank J. Duffee, Natchez, Miss.

Central Military District: C. A. Laney, Akron, Ohio; F. D. Norviel, Anderson, Ind.; Polk Lafoon, Covington, Ky.; W. S. Rodgers, Detroit, Mich.; Frank J. Hanlon, Mason City, Ia.; F. W. Hild, Denver, Col.; A. M. Paten, Topeka, Kan.

Western Military District: W. H. McGrath, Seattle, Wash.; W. C. Orem, Salt Lake City, Utah.

The plans of the traffic bureau are contained in Bulletin No. 4 of the War Board, just issued. The Bulletin states as follows:

The object of the traffic department is to place such facilities of the electric lines, as may be possible of utilization for the purpose, at the disposal of the government for relief of the present war-time traffic situation.

The bureau will keep in close touch with all government departments having to do with the transportation of men and materials and with the Director General of Railroads and his organization.

It will place before these departments and the Director General all available information, as to the ability of the electric lines to be of service in the quick handling of men and materials.

The traffic manager will inform himself, as far as possible, of all government movements of men or materials and will immediately notify the sectional traffic representatives and the electric railway lines interested. The same course will be pursued in connection with any movements suggested by the steam railroad operating committees.

The War Board has been assured by the steam railroad authorities that they will welcome the assistance of the electric lines in the problem that confronts them.

It is suggested, therefore:

First, that each electric railway manager make, at once, a survey of the conditions in his territory, with the idea of ascertaining the specific things that can be done by his road to relieve traffic congestion.

Second, that each electric railway manager consult with the officers of the steam roads in his territory, in order that a distribution of traffic having for its principal object expeditious movement may be effected.

Third, that each electric railway manager communicate with the traffic representative of his territory according to the list given in this bulletin, as to what movements of men and freight he is prepared to take care of.

In connection with any conference with steam road officers, attention is called to Bulletin No. 42, of the American Railway Association recommending that railroads "encourage . . . co-operation with trolley lines for hauling short-haul freight."

The sectional traffic representatives are expected to thoroughly familiarize themselves with the traffic facilities, both passenger and freight, of every electric line in their territory.

They should post themselves as to rates, routes, steam road connections, and connections with electric railways in adjoining states and with water lines.

They should work to the end of establishing through traffic arrangements on connecting lines, where such arrangements do not now exist.

They should keep in touch with the quartermaster at cantonments, camps, forts, arsenals, etc.

They should, wherever possible, work in conjunction with the state councils of national defense.

Traffic representatives in adjoining states should work in co-operation with each other and with the state or sectional associations in their territories.

It is the belief of the War Board, that existing facilities of the electric lines should be utilized so as to render the greatest possible service, but that any improvements or extensions which require capital expenditure should be approached with great care, as it is evident that any capital expenditure not absolutely essential hampers the government in the raising of funds for purposes of the war.

In general, electric railways can, in many instances, render valuable services in supplementing the steam railroad facilities for short-haul traffic both of passengers and freight; by the movement of recruits, troops and supplies to and from cantonments, camps, etc., and by transporting merchandise around congested points, thus relieving crowded terminals.

E. C. Faber Issues Traffic Questionnaire

THE new traffic manager of the Electric Railway War Board has sent to electric railways a list of questions for the purpose of assembling traffic data for the benefit of the Director General of Railroads. Mr. Faber states that under present circumstances it is the patriotic duty of each American citizen to bend every effort towards relieving the present traffic congestion and towards placing on the highest plane of efficiency every existing transportation facility. This will entail co-operation on the part of everyone concerned, including the public, and this must be constantly borne in mind in any consideration of the subject. It is evident that the electric railways can be used to supplement steam railroad service, thus relieving the steam roads of a considerable amount of short-haul traffic, so as to render steam road cars and facilities available for long-haul business—business which the electric railways are not in a position to handle.

Mr. Faber requests that in furnishing information the railways do not overstate the extent to which they can render such relief, bearing in mind, on the other hand, their duty to make the greatest possible use of the facilities at hand. It is their duty further to increase such facilities whenever they are in a position to do so.

Below are given the questions to which replies have been requested.

What are the cities served, with population opposite each city?

Give names of steam railroads serving same territory served by electric railway lines, indicating after each name the cities, towns and stations served by such steam roads in this territory.

PASSENGER TRANSPORTATION

If any so-called rush-hour service is required in the territory state the extent to which rush-hour service is given by each steam road serving the territory and also state the character and extent of rush-hour service now performed by the electric railways and to what extent the rush-hour traffic now handled by steam roads can be absorbed.

To what extent can the electric railway lines absorb the non-rush-hour traffic now handled by steam roads in the territory served? (Treat each steam road separately.)

State just what relief the absorption of such local traffic would afford the steam roads operating in the territory as to: (1) Number of trains; (2) number of locomotives; (3) number of passenger cars; (4) number of employees.

FREIGHT TRANSPORTATION

If the electric railways can relieve steam railroads, operating in the territory, of any of the local freight (carload or less-than-carload) they are now handling, state in detail the manner in which and amount of relief that can be afforded.

State just what relief the absorption of such local traffic would afford the steam roads operating in the territory as to: (1) Number of trains; (2) number of locomotives; (3) number of freight cars; (4) number of employees.

GENERAL

State briefly a comparison of the proposed electric service with the service now afforded by the steam railroads as to time, rates, location of terminals, and whether the proposed electric service is through (without change of cars) or whether transfer will be required.

Inclose a map showing lines, indicating thereon the steam railroad lines serving the same territory.

State any further suggestions pertinent to the subject matter of this inquiry blank which would offer relief to the steam railroads and which suggestions are not covered by the foregoing questions.

War Board Meets at Washington

THERE was a meeting at Washington of the American Electric Railway War Board on Friday, Jan. 11. All members were present. W. B. Hill, manager California Electric Railway Association, was also in attendance for part of the time and gave the members an interesting account of electric railway conditions on the Pacific Coast.

Among the subjects discussed was whether it would be desirable for the association to hold a mid-year meeting this year. President Stanley had asked the board to give him its views on the subject, in view of its opportunities of observation of national affairs. The board decided to recommend to President Stanley that no meeting should be held at this time.

It was decided to issue a bulletin shortly on the subject of the action of the government in taking over the steam railroads and the relation of this action to the electric lines. There was also a discussion on existing labor shortage and possible means for relieving it, as by the use of women employees or of high-school students during certain hours of the day to serve as conductors.

A considerable part of the meeting was taken up with a review of the activities of the traffic committee. Mr. Budd and Mr. Faber reviewed the work which had been done up to this time by the committee.

War Board Makes General Suggestions

BULLETIN No. 6 of the Electric Railway War Board is dated Jan. 11, 1918. It contains a number of general suggestions and report items. These are summarized in the following paragraphs:

Expenditures for Public Improvements.—Attention is directed to the admonition by federal authorities to the effect that no capital expenditures should be made excepting those essential to conducting the war. To illustrate, two quotations are appended to the War Board's suggestions. The first is from a communication addressed to federal reserve banks by the Federal Reserve Commission. It reads:

"Let the banks tell the people of their communities and their authorities, the mayors and governors, that this is not the time for cities to be spending money on public work; rather they should be considering the suspension of existing work, with the view of releasing men and material for the use of the government and so as not to compete with the government for the savings of the people, thereby weakening the ability of the government to place its loans."

The second quotation is from the annual report of the Secretary of the Treasury, Hon. William G. McAdoo. He says:

"The government must, if necessary, absorb the supply of new capital available for investment in the United States during the period of the war. This, in turn, makes it essential that unnecessary capital expenditures should be avoided in public and private enterprises."

Coal for Electric Railways.—The announcement is made that Col. J. Stanley Moore has been appointed Assistant United States Fuel Administrator, in charge of the coal supply for electric railways. His address is Room 105, Eighteenth and C Streets, N. W., Washington, D. C. He will not attempt to furnish relief to any electric railways unless he has at hand full data as to their requirements.

Co-operation of State Commissions.—New York: Resolutions adopted by a committee appointed at a conference between the Commission for the Second District and representatives of up-state electric railways are reprinted. (See ELECTRIC RAILWAY JOURNAL, Jan. 5, page 42.)

New Jersey: Attention is directed to a circular letter issued by the Board of Public Utility Commissioners mentioning economies possible on the part of electric railways. The Board says: "As the industrial plants must have more men than ever and as it will be impossible for the railways to carry them all practically at one time, it would seem that the problem would have to be solved by an arrangement which would necessitate some readjustment of the working periods in the shops and shipyards so that all would not start and stop at virtually the same time, or within the same hours.

Connecticut: Among the definite recommendations of the Public Utilities Commission of Connecticut were stated to be these:

"1. That the attention of mercantile, manufacturing and industrial institutions be directed to the necessity of co-operation in an effort to bring about a more even

distribution of traffic and a general improvement in transportation facilities.

"2. That the attention of motormen and conductors be called to the patriotic duty of saving current and fuel and that their co-operation be enlisted by pledge cards or such other method as may be deemed advisable.

"3. That the officials of all street railway companies in the State make a careful study of the general situation under present war-time conditions and put into effect such methods as will more effectively conserve fuel and economize in all labor and material consistent with reasonable service.

"4. That each street railway company in the State report to this commission, on or before Jan. 15, 1918, the results of its investigation in these matters, and the methods, if any, inaugurated or about to be inaugurated in the interest of fuel and other economic conservation."

Ohio: Mention is made of the fact that the first official act of W. C. Culkins, on assuming the duties of the newly created office of Director of Street Railroads for the city of Cincinnati, Ohio, was to issue an order abolishing 383 stops formerly required by the city authorities. Another interesting instance of co-operation was found in Columbus, where the City Council, upon application of the Columbus Railway, Power & Light Company, has permitted the installation of the skip stop all over the city, except in the business center.

General: The War Board reports that more than 300 electric railways have executed the economy pledge promulgated by it. Director C. Loomis Allen will appreciate information as to what is being done along conservation lines, and he would also like to receive newspaper clippings indicating the trend of public opinion as it affects electric railways.

Why the Electric Railway Must Have More Revenue

AT THE meeting of the Connecticut Company section held on Jan. 15, Dr. Thomas Conway, Jr., University of Pennsylvania, Philadelphia, Pa., gave an illustrated lecture on the economic position of the electric railways. With the aid of charts showing the increasing ratio of operating expenses to gross earnings, the diminishing margin of safety for funded debt, the decreasing ratio of net earnings to reproduction value, the decreasing ratio of net earnings to cost per mile of track, the decreasing amount of new construction, etc., he impressed his hearers with the critical character of the present financial status of the electric railway industry.

In order to give a local flavor to his subject, Dr. Conway referred in some detail to the testimony presented at the recently concluded hearings held in Hartford before the Public Utilities Commission of Connecticut, to show why the protest of the city of Hartford against the increase in fare from 5 to 6 cents is unreasonable. He urged upon his hearers the necessity for co-operation on the part of public utility employees in spreading among their constituents such facts as those which he presented.

Preceding Dr. Conway's lecture was the usual dinner, during which the members of the section were entertained with vocal music, including selections by a quartet from the Yale University Glee Club. Immediately

after the dinner W. P. Bristol, local manager Hartford division, the new president of the section, made a brief address, in the course of which he presented to his predecessor, W. J. Flickinger, the gavel which Mr. Flickinger had used during his term of office. He also announced the appointment of Mr. Flickinger to serve as director of the section for one year, and read a list of members of the program, entertainment, resolution and membership committees for the coming year.

Mr. Bristol was followed by Mayor David E. Fitzgerald of New Haven, who complimented the executives of the company and its employees on the friendly relations existing. He touched upon the present conditions on the system, pointing out that neither company nor employees could be blamed for existing inconveniences, which were the natural consequence of the troublous times in which we are living. He predicted that a time might come when the people of New Haven will have to put up with much greater hardships, through the inability of the trolley company to operate even as large a number of cars as they are doing at present.

"Sparks" from Toledo

THE joint section of the Toledo Railways & Light Company, representing the national electric railway, electric light, gas and heating associations, is issuing a monthly bulletin which has just been christened with the euphonious and suggestive name *Sparks*. *Sparks* contains eight pages of facts regarding the property, section statistics, an article by Secretary H. Friede on "Why You Should Become a Member of the Joint Section," and general matters of interest. Among the last-named is Dr. Charles W. Eliot's list of twenty-five books which will give any man the essentials of a liberal education. *Sparks* carries no advertising.

The section held no meeting in December, as the regular date came in the holiday season. At the Nov. 28 meeting H. M. Johnson, of the General Electric Company laboratory at Nela Park, gave a demonstration lecture on illumination. He showed, among other things, how the appearance of a picture is affected by the lighting. Marcus A. Dow, supervisor of safety, New York Central Lines, is scheduled to speak at the next meeting on Jan. 23.

The Story of a Severe Storm

AT THE meeting of the Public Service Railway company section, held on Jan. 17, David H. Roszel, division engineer Hudson Division, read a carefully prepared history of the terrific storm which visited this section of the country about the middle of December. He related the meteorological story of the storm, described the efforts made by the company to meet it, gave estimates of the cost of the storm to the company (amounting to \$150,000 or more), and told some interesting tales of passengers who were caught unawares by the suddenly developed ferocity of the storm on the evening of Dec. 11. This paper brought about a lively discussion on snow fighting.

In addition to the technical discussion, a number of humorous and semi-serious stories were told by L. J. Tynan, attorney in the claim department, who closed with a patriotic appeal for co-operation between the men and Public Service.

CONSTRUCTION, MAINTENANCE AND EQUIPMENT

ENGINEERS, MASTER MECHANICS AND OTHERS WHO HAVE DEVELOPED ECONOMICAL PRACTICES, OR WHO HAVE WORTH-WHILE IDEAS ARE INVITED TO TELL READERS OF THE JOURNAL ABOUT THEM IN THIS DEPARTMENT

Using Car Hoists for Changing Wheels

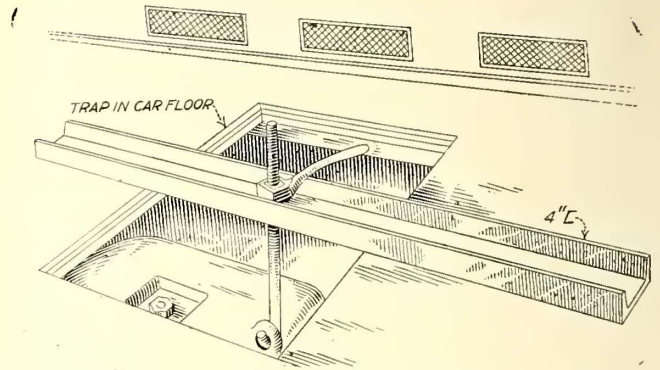
BY KEITH MAC LEOD

Engineer of Equipment, Montreal (Que.) Tramways

THE accompanying halftone shows a method of utilizing a car hoist for the purpose of changing wheels. This method has superseded the use of wheel pits in our carhouses with gratifying results.

The procedure is to place cross beams (supported from the main beams by saddles or links) under the truck end frames, to remove the pedestal straps of the wheels to be changed, to hook up the motors from the car floor, to remove the axle caps and bearings and then to raise the hoist. When the car is raised sufficiently the old wheels are run out, the journal boxes are changed and the new wheels are run under to their proper places. The journal boxes are then guided into place as the car is lowered.

The method of hooking up the motors from the car floor is illustrated in the accompanying sketch. The motor is simply suspended from a channel iron, which is placed across the trapdoor, by means of a hook inserted in the bale on the motor frame. The hook is



HOW MOTOR IS SUSPENDED FROM CAR FLOOR

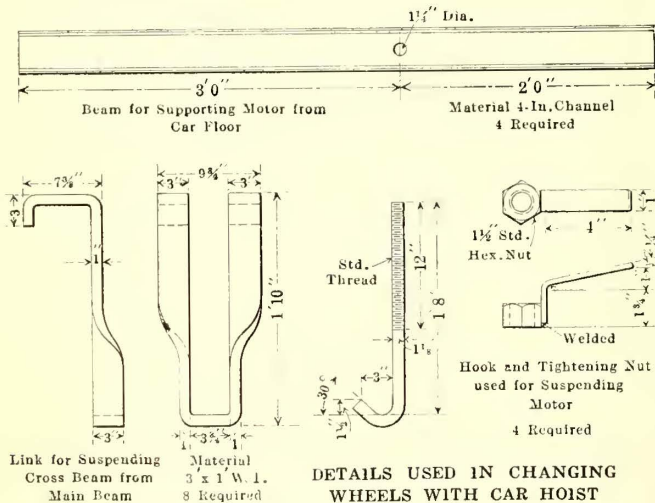
held in place with a special nut screwed on the end which projects up through the channel.

Although there is a saving of time, even for one pair of wheels, as compared with the wheel pit method, the proportionate saving is much greater for two or more pairs. In cases when four axles are to be removed, the relative time required per axle compared with the former method has been found to be roughly one to three.

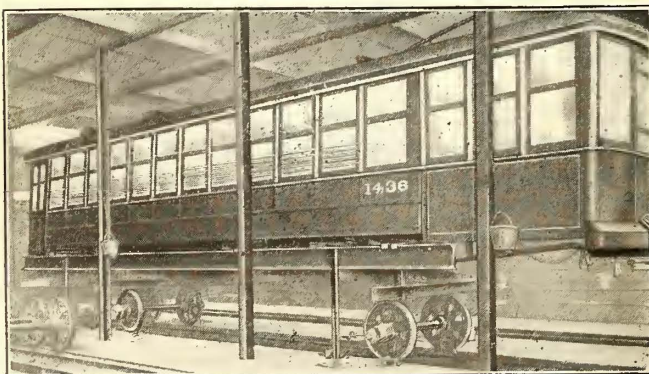
Aluminum Catenary Construction

IN THE usual catenary construction, the contact system is not depended on for power transmission. Copper wires were formerly used for this service, but where traffic is heavy they have been largely replaced by bronze or steel wires. These wear better, but have poorer conductivity. The necessary conductivity in the catenary system has been obtained on the Lake Erie Northern Railway, as explained in the January issue of the *ELECTRIC JOURNAL*, by wrapping the conductor around the steel messenger cable. This cable consists of seven strands of 0.1118-in. double galvanized extra high strength steel having an elastic limit of 130,000 lb. per square inch. Fifty-four strands of 0.1118-in. hard drawn aluminum are laid in three layers around this steel core. This gives a cross section of 675,000 circ. mils of aluminum having a conductivity of 61 per cent, which is equivalent to No. 0000 B & S gage copper cables. The complete cable including the steel reinforcement weighs 874 lb. per 1000 ft., while two No. 0000 copper cables would weigh 1316 lb. per 1000 ft.

For the contact wire a No. 0000 B & S gage mild steel, galvanized grooved wire, having an elastic limit of 36,000 lb. per square inch, is used. The coefficient of expansion is two-thirds that of copper and the cost about one-third. The contact wire is supported at fifteen foot intervals by galvanized steel hangers and the catenary cable is strung with a deflection of two feet in 150 foot spans. The aluminum strands of the supporting



DETAILS USED IN CHANGING WHEELS WITH CAR HOIST



VIEW OF CAR HOISTED TO RECEIVE NEW WHEELS

Auto Tower Versus Horse-Drawn Tower

In Every Respect the Self-Propelled Tower Has Proved Far Superior to the Horse-Drawn Equipment—Reasons Why This Is So

BY S. L. FOSTER

Chief Electrician United Railroads of San Francisco

AGENTS for self-propelled towers for construction and maintenance of overhead trolley wires have explained volubly the advantages of their appliances over those which are horse-drawn. The favorable financial aspect of the question has already been fully presented, but there has been little in literature to make clear the relative features of the two types of towers in their practical details.

The United Railroads of San Francisco found most of the good points of auto towers after a few days' use of a 2-ton Pierce-Arrow equipment. The hills ceased to have any terrors for the linemen, for, instead of having to be favored on the climbs, the auto readily responded to all demands. Fifteen and 16 per cent grades, which with horse-drawn towers had to be ascended by circuitous routes and necessitated that line-work be done down hill, were easily surmounted by the auto and the work was done up the grade. No more time was lost in watering, feeding or resting the horses or in waiting for the blacksmith to replace torn-off shoes. There was no longer any fear of hurrying lest the driver be scolded for overheating the horses. The auto could proceed on the level or climb the ascents more than twice as fast as the horse-drawn vehicle and, on descending, the only limit was the nerve of the chauffeur or the allowance permitted by the auto guarantee. The camouflage of the fire department crimson color of the rig, the "Auxiliary Fire Apparatus" signs, the siren and the portable fire extinguisher made the auto tower independent of even the traffic officer and his rules.

The danger of overturning on steep hills was also reduced. There was no occasion to turn the auto on a grade, as all maneuvers were managed by backing up

(Concluded from page 142)

cable are protected from abrasion by sheet-steel sleeves provided with flanges between which the loop of the hanger is free to rise slightly when the collector of the car passes under it without lifting the catenary cable. The contact wire and catenary cable are connected by stranded flexible copper conductor every 150 feet.

Joints in the catenary cable are made by steel sleeves of figure-8 section about eighteen in. long. The ends of the steel cable are slipped into the sleeve from opposite ends and the sleeve is then given four or five complete twists. Over the splice of the steel core an aluminum sleeve is placed and the ends are compressed solidly into the strands of the aluminum conductors by means of a portable hydraulic press capable of exerting 100 tons pressure.

Parallel feeder cables are entirely eliminated by this construction, and due to the high elastic limit of the contact wire it is expected that no adjustments will be necessary to take care of temperature differences between winter and summer. A considerable saving in insulators and labor has been effected in addition to the saving of material.

or going ahead at a slight departure from the line of the rails, whereas backing a horse-drawn tower up a steep grade had been out of the question.

When the auto tower was not in motion the lineman-chauffeur was free to assist in the work aloft or on the ground, as there were no horses to watch and no danger of the motive power taking fright or running away.

In pulling out heavy feeder cables the draft by the auto tower was stronger and steadier than by the horses. There was no compunction felt about overloading the auto a little, pushing it to the full limit of its speed or sending it for long trips, and it was found to have more reserve capacity and to be better able to stand all these strains than was the equine equipment. The increased speed available from the auto reduced the time between spans so that twice or three times as many miles of trolley could be inspected or overhauled in a day as was possible with the horse-drawn rig. The bed of the auto was 6 in. lower than that of the horse-drawn tower, thus making material and supplies more accessible to the groundmen and fewer moves were required. As the auto was longer than the wagon bed of the older vehicle, the extension ladders no longer projected beyond the body, but were entirely protected from injury by collision with intercepting wagons, and yet the auto vehicle occupied less longitudinal street space than the former tower plus the horses.

Rubber tires made the riding more comfortable for the linemen than the iron-shod wagon wheels of the former towers. Instead of a wagon driver with the education and instincts of a hostler, the new vehicle was guided by a lineman with mechanical instincts, who rendered intelligent and efficient assistance to the crew when not acting as chauffeur. The range of the operation of the tower when propelled by the auto was greatly increased over that permissible or wise when horse drawn, as its radius of action was limited only by the time available in the working day and not at all by the endurance of the motive power.

On account of the increased speed of the new vehicle it was unnecessary to provide special stabling facilities with supplies of hay, grain and men or to hire horses from outside owners when a special job of construction was to be done at an abnormal distance from the linemen's base. Formerly this practise had to be followed in order to save the energies of the horses and reduce the time of the men employed making the slow trip to and from the work over the strenuous, hilly routes radiating in all directions from the city.

The generous floor and yard space required for the storage, maneuvering and maintenance of the horse-drawn vehicle and for the lodging and feeding of the horses was all saved, as the less offensive auto tower was willingly admitted for shelter at night into an available space in the linemen's quarters and storeroom. This would have been difficult and objectionable with the former type of tower. The whole equipment of the later appliance was thus stored under cover and protected from exposure to the rain, fogs and thieves of the night, which was not so with the older tower. The replenishing of the supplies on the new tower was also greatly simplified and many steps were saved.

The cost for second-story dry loft space, the labor of hoisting and stowing the hay and grain for the horses and the expense of segregating, storing and removing the stable refuse was entirely eliminated. The liquid

fuel for the auto was stored in a tank underground and was filled from the supplyman's portable tank by gravity at no expense. In the case of the auto there was practically no refuse, either offensive or otherwise, to collect, store and periodically remove. The fire hazard was also reduced by the substitution of the engine for the horses, as the gasoline, though more inflammable than the hay, was so small in bulk and was stored so securely under the ground that the probability of its being ignited was less than that of the great lofts full of hay. It was also free from the extensive destruction that grain is subject to from the army of rats and mice so prevalent about stables. Incidentally, the great saving of hay, grain and men and the release of the horses must have their effect in helping us win the war.

Because of the many heavy grades in San Francisco, when equipping with horse-drawn towers, the one-horse wagon was bought and provided with two horses. The gage of the wheels was increased from 4 ft. 8½ in. to 6 ft. to reduce the danger of overturning on the grades. The result of driving this tower along the standard 4 ft. 8½ in. track was that one wheel ran on a rail and the other ran on basalt or granite paved streets, so that the jouncing of these off wheels made the riding very exhausting for the workmen. As the auto tower does not turn on the grades, there was no necessity of this increase in gage and the standard 4 ft. 8½ in. gage was retained. With the Trilby railhead the auto thus had the smoothest possible path for both wheels when running on the car track.

With the 2-ton auto tower costing \$4,000, the two-horse tower costing \$800, and assuming 6 per cent as annual interest, it is necessary to save only about 50 cents per day per auto tower over the horse-drawn tower to equalize the two investments. The running expenses, maintenance and depreciation will vary in different localities, but they are apparently strongly in favor of the auto tower, judging from the very general substitution of the auto for the horses throughout the country.

When constructing an auto tower there are two valuable improvements that can readily be introduced that are well worth considering, namely, the substitution of the three-section tower for the usual two-section kind and the arrangement whereby the tower can be raised or lowered by the automobile engine through the control of the chauffeur from his seat, as will be described more fully in a later article.

Summarizing, the auto tower is preferable because it is faster, cheaper, safer, looks better and is more efficient, has greater power, steadiness and endurance, occupies less room for storage and handling, obviates labor of receiving and stowing food, reduces the fire hazard, eliminates the parasite hazard, consumes no fuel when not in motion, rides more smoothly, requires no additional floor or loft space for fuel or motive power, has no daily refuse to take care of and may help win the war by reducing the consumption of hay and grain and by releasing horses and men for other work.

Some sage said that "familiarity breeds contempt," but in the case of the internal combustion engine driven linemen's tower, familiarity breeds admiration and enthusiasm and the wonder how we managed so long without it.

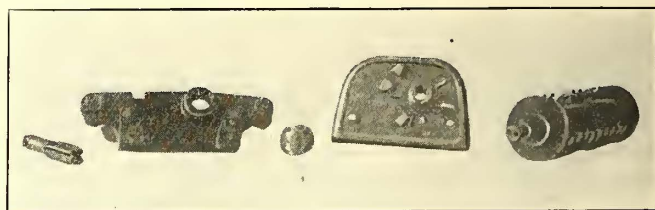
Renewing Worn Controller Parts

BY JAMES W. BROWN

Superintendent of Shops Wilkes-Barre & Hazleton Railway,
West Hazleton, Pa.

FOR renewing controller parts which have become worn by the action of the controller handle we have developed a very inexpensive method requiring no new materials. This results in a fine job and makes future renewals easy. To repair the top of a G E-C-36 master controller, the hole for the drum-shaft is first tapped out with a 1-in. tap having fourteen threads per inch. This tap is shown at the extreme left of the illustration. In the hole is screwed a piece of tobin bronze, made from pieces of old power-house pump rods cut off to proper length and threaded. Such a piece ready to be screwed into place is shown in the center object of the illustration below.

A new hole for the drum-shaft is turned by fastening the controller top in a lathe with the large casting



WORN CONTROLLER PARTS RENEWED

shown at the left of the illustration. This is faced on one side and is held against the face plate with two ⅝-in. bolts. On the other side are cast two bosses, which are faced off and drilled to receive two ⅜-in. cap screws for clamping on the controller top. The hole in the casting, to coincide with that to be drilled in the controller top, is bored 1¼ in. in diameter in a large boss, which leaves sufficient bearing surface.

When the holes in the end of the controller shaft are badly worn we place the controller drum, shown at the right of the illustration, in a lathe with one end in a chuck and the end to be renewed in a steady rest. After cutting off 1¼ in. the end is drilled and tapped with a ½-in. standard tap. A piece of ⅞-in. cold rolled steel, with one end machined and threaded, is screwed into the end of the shaft, and the remainder of it is turned down to size, after which the two holes are drilled in the end. To insure this new part remaining in place a ⅛-in. hole is drilled through it and the drum shaft and into this a steel pin is driven.

Method for Using Old Pinions

The Washington Water Power Company, Spokane, Wash., was recently handicapped by the lack of pinions. There were a number of old worn-out pinions on hand, but no new ones could be obtained without waiting several months. The situation was met by taking the old pinions which had an over-all diameter of 7¼ in., and nineteen teeth, and cutting off the teeth. New teeth were then marked out, giving a pinion 5¾ in. in over-all diameter and having fifteen teeth. For cutting the new teeth a small milling machine was the only available apparatus, and for this reason it was necessary to slot the teeth first and then mill them. The cost of doing the work was a little less than \$5 per pinion.

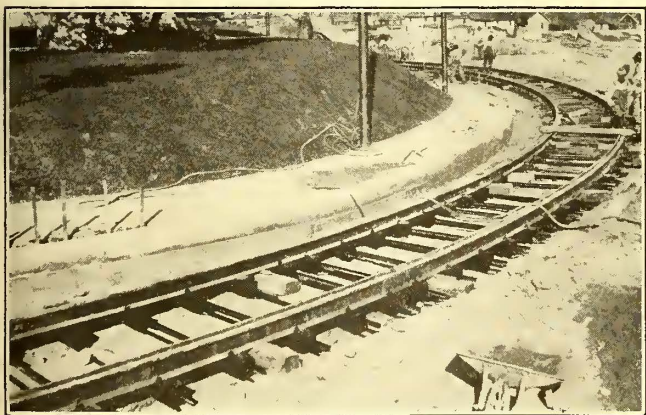
Advantages of Mechanical Ties

Cushioning and Noise-Reducing Effect Favorably Commented Upon by Public—Light Weight Facilitates Assembling

EXPERIENCE in Dayton with the Dayton mechanical tie in railway track is bringing out some striking features of this equipment in comparison with the more common track construction. The cushioning and noise-reducing effect of this type of construction is brought out by the comments of people along a certain street in Dayton on which one of the tracks is built with the mechanical tie and the other with ordinary wood tie and solid concrete construction. These residents say that there is a noticeable quietness about the track laid with cushioned ties.

A very prominent superintendent of rolling stock pointed out the value of the cushioning effect of the mechanical tie by comparing the effect on the rolling stock operating over open-type track construction on summer days and on cold winter days. He states that when the open-type track becomes rigid due to ice that he has a great deal of trouble with broken trucks. This is undoubtedly the result of the very rigid character of track while frozen, since he does not have this trouble on days when the track is in normal condition.

Another interesting feature of the mechanical tie is that it seems to solve the difficulty of obtaining an interurban car motor suspension spring equally satisfactory for open-type interurban track and rigid concrete-type city track. If the spring is flexible enough to serve the purpose well on the rigid track, it is too flexible for the open track, and if correct for the open-type track it is too stiff for city track. By using the mechanical tie and the type of track construction which it involves, it is plain that approximately the same flexibility can be had in city track as is obtainable in open-type country track. The difficulty with the spring is therefore minimized. The flexibility is partly accounted for by the fact that the $\frac{1}{2}$ in. of asphalt under the tie



MECHANICAL TIES ON 100-FT. RADIUS SPIRAL CURVE

blocks has about the same elasticity, or will compress about the same amount, as the space which is formed underneath the rail by the contraction of the concrete as it hardens and pulls away from the base of the rail. Thus when the asphalt has been compressed an extremely small amount, the base of the rail is brought to bear upon the concrete, thereby making the bearing core solid as it depresses.

It is claimed that the installation of the Dayton me-

chanical tie on curves is a more simple operation than that of installing other mechanical ties. The reason for this is that the bearing surface on each tie is only 8 in. wide, so that the small amount of play left by the spacing of the holes for the rail clips is sufficient to allow for the curvature of the rail between bolts. Owing to the change of the center of bearing on the rail at the curves, the setting of the blocks on the ties is specially arranged for a curve of given radius. All the ties of a given curve are drilled uniformly.

It is claimed that the use of the mechanical tie practically eliminates the necessity for tie rods at curves, because the angle irons really serve in this ca-



SEVEN MEN, PREPARING TRACK, KEEP AHEAD OF CONCRETE MIXER AND SIXTEEN MEN

capacity. The bolts extend through the wood blocks and through the angle irons, which are embedded in concrete, so that the rails could not pull apart without actually pulling the bolt through the angle iron. Where it is desired to install rail slightly tilted, this is very readily accomplished by beveling the wood blocks for the mechanical ties.

One of the features of the tie is the ease and rapidity with which it may be assembled on the job. The weight of 55 lb. is, of course, in its favor in this respect. On one job seven men were employed to dig the trenches for the concrete sill placed along under each tie, lay the rail, fasten the ties to the rails, block the track to grade, etc., and these seven men were able with ease to keep ahead of a 1-yd. concrete mixer and sixteen men employed in concreting a 22-ft. wide street, including the trackway, with a 6-in. slab.

As to the cost of track built with the Dayton mechanical tie, it is claimed on account of the smaller amount of excavation necessary and reduced quantity of concrete required that the cost is from \$2,000 to \$2,500 a mile of single track less than it is with ordinary wood ties set in solid concrete.

Turning Steel Wheels

On the Springfield (Ohio) Railway 34-in. steel wheels are used on all cars. It is the practice to obtain three turnings, but many times the third is rendered impossible on account of the development of sharp flanges. In these cases the flange is built up by use of an electric welder. It has been found desirable, however, to turn the wheel before building up the flange as the metal put on by the welder is so hard the machine tool will not touch it. This operation requires about six hours.

High-Pressure Boilers for Joliet Plant

Operating Pressure of 325 Lb. Per Square Inch, Superheat of 225 Deg. Fahr and New Type of Economizer Described

THE Public Service Company of Northern Illinois has just completed the first unit of its new power house at Joliet, Ill. This has many interesting features, but of most value to railway electrical engineers will be those in connection with the boiler equipment. The station has been built on a carefully chosen site and although at present only one 10,000-kw., 12,000-volt machine is in operation, the plant can be extended in unit sections to an ultimate rating of 60,000 kw. or more. The expected industrial growth between Chicago and Joliet will place the plant in the electrical load center of the present system.

THE HIGH-PRESSURE BOILERS

For each 10,000-kw. generating unit there will be two cross-drum, water-tube boilers, each having 9919 sq. ft. of steam-making surface and developing a pressure of 325 lb., a built-in superheater with 3100 sq. ft. and an economizer containing 6730 sq. ft. of surface. The boiler arrangement is shown in Fig. 3. The intention is to use three boilers to carry the two generating units, leaving one boiler in reserve. This arrangement will supply 1.49 sq. ft. of active steam-making surface per kilowatt of generating capacity, or on a basis of 10

ft. per horsepower. The height from the floor to the top of the economizer is 42 ft.

Two chain grates, each 8 ft. wide, 14½ ft. long and containing 116 sq. ft. of active grate area, are placed side by side in a common furnace. The ratio of the total grate area to the steam-making surface is one to forty-three. The stokers are motor-driven with vertical engines in reserve. An individual self-supporting steel stack, 7 ft. in diameter, rises 125 ft. above the grate. Owing to the low temperature of the flue gases leaving the economizer, the stack is unlined.

HORIZONTAL-TUBE ECONOMIZERS

The all-steel horizontal-tube economizers are of special interest, as they are the first of their kind in this country. Differing from the boiler construction, no drums are used. The headers are of wrought steel and the tubes are 4 in. in diameter, ¼ in. thick and 16 ft. long, of drawn steel, galvanized inside and out to guard against corrosion. The economizer is vertically baffled for three passes, the gases from the boiler entering at the front and from the third pass rising vertically through the induced-draft fan to the stack. The fan has capacity to handle 75,000 cu. ft. of gas per minute at 35 deg. Fahr. At this rating 94 hp. is required. Water to the economizer enters at the bottom of the rear header and passes through 396 tubes, leaving at the top of the front header. The relative flow of gas and water is thus counter-current.

The feed water to the boilers is mainly condensate

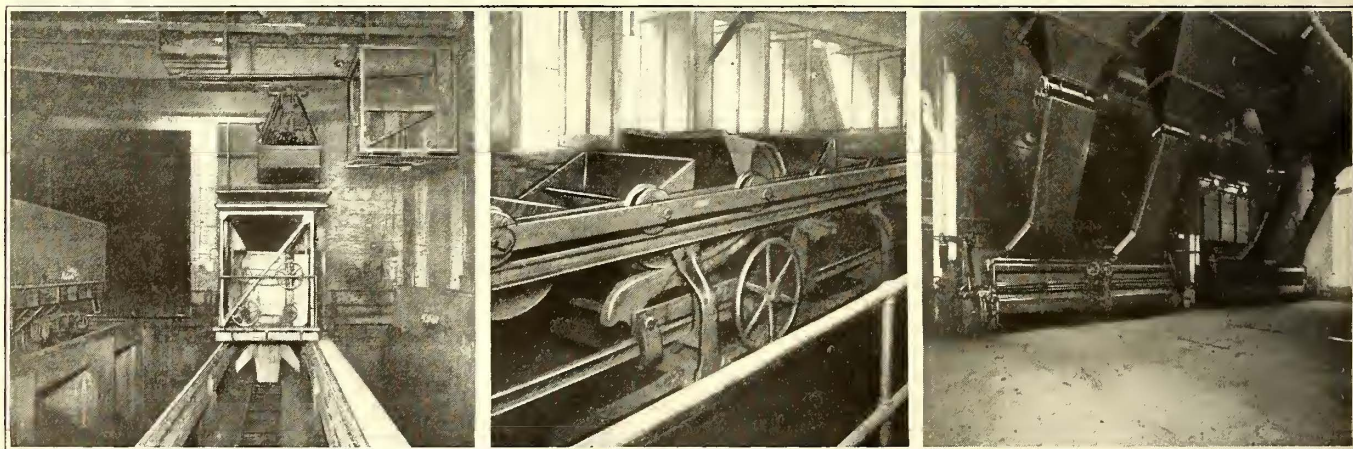


FIG. 1—FOUR-MOTOR CRANE WITH 2-YD. GRAB BUCKET FOR UNLOADING COAL. FIG. 2—BUCKET CONVEYOR DELIVERS COAL INTO OVERHEAD BUNKER. FIG. 3—BATTERY OF BOILERS NOW IN SERVICE AT JOLIET PLANT

sq. ft., 1 b.hp. will serve 7.67 kw. The plates in the boiler drum are 1 5/16 in. thick, the longitudinal seam being a butt and double-cover strap quadruple riveted joint.

The heads are secured by two rows of rivets. Tubes of No. 7 gage are used and all high-pressure steam piping is extra heavy and of relatively small diameter. All fittings are of steel, the manifolds used in connection with the boiler leads having been cast and the smaller fittings forged. On pipes above 4 in. in diameter a special bolted joint with a welded seal at the periphery is used. Each boiler with its steel casing, masonry setting and retreating back covers an area of 294 sq. ft., or 0.296 sq. ft. per horsepower of rating. Including the overhang and space occupied by the stokers, the floor space covered is 585 sq. ft., or 0.59 sq.

which has been delivered through a preheater at the top of the condenser containing 1000 sq. ft. of surface, to the heater by either one of duplicate motor-driven condensate pumps. The heater is of the open type, having capacity to serve the two boilers of the unit. Either of two four-stage turbine-driven centrifugal pumps designed to deliver 300 gal. per minute against a head of 375 lb. to 400 lb. feeds the water to the boilers. The turbines are rated at 126 hp. and operate under full boiler pressure, their output being controlled by pressure regulating valves. The water passes through the economizer and enters the boiler at both ends of the cross-drum.

The make-up water comes from a fresh-water reservoir which collects the drips, heat overflow and other available condensed steam. Under float control, it is

also supplied with filtered service water. The house service water supply is drawn from the condenser intake tunnel by two 600-gal. pumps, one driven by a turbine and the other by a motor. It is delivered to a service tank on the roof. From the pump discharge line several taps are taken off for transformer cooling and for various services where raw water can be used. Return water from the tank passes through duplicate pressure filters which are cross-connected and used alternately. Each has capacity to filter 150 gal. per minute. Upon leaving the filter the water supply divides, part going to cool bearings and to the lavatory system, and the rest as needed to the hot-water reservoir. The vacuum on the main unit is utilized to draw the water from the reservoir into the condenser, the amount being regulated by a float in the heater. It is removed by the condensate pump in the usual way and delivered to the heater. With the exhaust steam available the water temperature in the heater under average load conditions will raise from 100 deg. to 120 deg. Fahr. To maintain the temperature within this range a bleeder connection under thermostatic control has been made to the fourth stage of the turbine.

COAL-HANDLING SYSTEM

Coal for the plant is brought in over the company's siding from the Chicago & Alton tracks at a junction about $\frac{3}{4}$ mile distant. The company has its own locomotive and coal cars and a yard at the plant containing five tracks. Between the tracks there is space to store about 10,000 tons of coal inside the power house. One track, centering on the firing aisle, leads into the boiler-room basement over a concrete pit capable of storing 800 tons of coal. By a four-motor traveling crane with a 2-yd. grab bucket, shown in Fig. 1 the coal is unloaded into a four-roll traveling crusher driven by a 50-hp. induction motor. This discharges into a bucket conveyor, illustrated in Fig. 2, delivering into the overhead bunker. The latter has capacity to hold 450 tons or 112 tons per boiler. The bunker is made up of steel plates, concrete-lined, and is divided up into compartments with double chutes from each leading to the two stokers under their respective boilers.

Screenings are handled in the same way, with the exception that the rolls of the crusher are spread to allow the coal to pass through to the conveyor. On both sides of the crusher are by-pass chutes to the storage pit. The coal may be unloaded into the pit or onto the outdoor storage space, in the latter case being handled by a locomotive crane.

Under each boiler are ash and fine coal hoppers. The former is lined with fire brick and is equipped with a sprinkling system to wet down the ashes. These are passed directly to railway cars through a sliding gate, thus eliminating ash-handling apparatus. The fine coal hopper, located farther forward, delivers its contents to the concrete storage pit, the outlet being controlled by a sliding gate operated from the boiler-room floor.

Survey of Grade Crossings

The Illinois Public Utility Commission will make a survey of the grade crossings in the State, in compliance with a law passed by the General Assembly, which requires that special precautions be taken at all especially dangerous crossings.

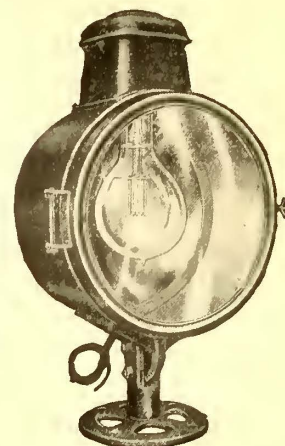
New Floodlighting Unit

AS a further development of their line of "Golden Glow" and "Crystal Mirror" floodlighting projectors, the Electric Service Supplies Company has placed on the market a new floodlighting unit to be known as type FL-1419.

This new type of projector is particularly designed for short range work where a wide beam dispersion is desired. It is equipped with 14-in., long focus type, parabolic "Golden Glow" or "Crystal Mirror" reflectors which project powerful, dispersed beams of golden light and white light respectively.

In its recent catalog on floodlighting projectors this company classified the different floodlighting subjects into two divisions, namely, those in which the human eye is brought into continuous use to observe detail and those in which the human eye figures only momentarily or where lighting a subject as a whole is the main consideration. For the first classification it recommends "Golden Glow" light and for the latter case the "Crystal Mirror" projector.

The new type, FL-1419, meets a demand for a more powerful projector than any heretofore cataloged by this company, it being adapted to use with 500 to 1500-watt type C Mazda (or nitrogen filled) lamps.



NEW TYPE OF FLOODLIGHT PROJECTOR

What Causes Car Delays

Investigation in Toledo Shows That in One Week Electric Railway Cars Have 926 Waits, Which Waste 12,300 Minutes

IN a recent newspaper article the Toledo Railways & Light Company explained to patrons that they should not be angry when they are forced to wait for cars, because it is not the fault of the company. The article, based upon an investigation made by the company, showed that in an average week the delays resulted in wasting 12,300 minutes, or more than eight and one-half days, but that the great majority of the causes of delay were beyond the company's control.

A. Schwartz, assistant manager of railways, took an average week, Oct. 25 to Oct. 31, and found the car delays in that time resulted from 926 individual delays. There are approximately 5000 car movements a day on the Toledo system.

The biggest cause of delay was railroad-crossing hold-ups. They were responsible for 26 per cent of all delays. Vehicles breaking down in front of cars caused 4 per cent of the delays. Loading passengers was responsible for 12 per cent. This means that many refuse to go forward. Track-construction work caused 4 per cent of the delays; city drawbridges, 8 per cent; waiting at switches, 10 per cent; weather conditions, such as slippery rails, etc., 5 per cent; equipment failure, 10 per cent; trackwork failures, 9 per cent; leaving car-houses, 7 per cent; trolley breaking, 1 per cent, and fire department, 1 per cent.

News of the Electric Railways

TRAFFIC AND TRANSPORTATION

FINANCIAL AND CORPORATE • PERSONAL MENTION • CONSTRUCTION NEWS

Pittsburgh Study Presented

Transit Commissioner Makes Recommendations After Investigation Carried on During 1917

E. K. Morse, transit commissioner of the city of Pittsburgh, Pa., has presented to the Mayor and the City Council his recommendations as the result of the study which he made of transit conditions in that city. His principal recommendations are the construction of rapid transit trunk lines, extensions to be built as rapidly as warranted, radical changes in the routing of surface cars, the widening of a number of important thoroughfares, and more rigid regulations as to the parking of vehicles. Mr. Morse was appointed transit commissioner of the city on Nov. 13, 1916. The report which he has presented represents the result of the study of the transit problem entered upon by Mr. Morse as soon after his appointment as he was able to organize his forces.

TRUNK LINE CONSTRUCTION RECOMMENDED

Mr. Morse classifies the trunk lines in periods of construction as follows:

First period: A two-track rapid transit line from the south end of the present Mount Washington tunnel to Dallas and Frankstown Avenues via the Mount Washington tunnel, the Smithfield Street bridge, Water Street, Grant Street, Penn Avenue and Frankstown Avenue.

Second period: A two-track rapid transit line from North Diamond Street in Northside to Schenley Park, via West Diamond, Dasher, Stanwix, Diamond and Forbes Streets and Fifth Avenue.

The first trunk line proposed would be largely of elevated road construction and the second mostly subway construction.

Various extensions to both of the foregoing rapid transit lines, Mr. Morse recommends, be carried out as soon as the conditions of traffic and population would warrant the necessary expenditure of money.

FAVORS MUNICIPAL OWNERSHIP.

In line with a statement Mr. Morse recently made before the City Council, as referred to previously in the *ELECTRIC RAILWAY JOURNAL*, he takes a stand in his report in favor of municipal ownership of the proposed rapid transit lines. His recommendation on this point reads as follows:

"That all rapid transit lines be municipally owned but operated by the same company as that operating the surface railways, provided that a satis-

factory agreement between the city and the operating company can be reached.

"That, in case the operating company refuses to co-operate, the city, under authority of the law recommended, complete an efficient transportation system and lease to another private company.

"That, in case the city cannot lease to any private company on satisfactory terms the system be municipally owned and operated."

BROAD STUDY NEEDED

In concluding his discussion of the rapid transit routes which he recommends for construction Mr. Morse says:

"The study of rapid transit should not stop with the recommendations for the immediate future, but should be broad enough in scope to take into consideration the future growth and welfare of the city. The routes recommended form the base on which may be built a comprehensive system of rapid transit, which, with the extensions recommended, will connect the residence districts with the employment, shopping and amusement districts and provide a fast, comfortable and efficient means of transportation for the people of Pittsburgh. It is realized that it is unwise to predict the growth of a city beyond a moderate term of years and therefore the future extensions are only conditionally recommended."

Mr. Morse deals at considerable length in his report with matters very largely of purely local interest or of interest only to those intimately acquainted with the geographical arrangement of the city.

Change in Indiana Commission Procedure

A reorganization of the Public Service Commission of Indiana has been announced. Commissioners Charles A. Edwards and John A. McCardle will hereafter handle all cases affecting steam, interurban and city railways, telegraph and express companies. Chairman E. I. Lewis, who has been handling railroad problems, will hereafter consider cases involving warehouses and heating plants. Commissioner Paul P. Haynes, recently appointed to the board, will handle problems affecting telephone and gas companies. All matters pertaining to electric light and water plants will be considered by Commissioner Edwin Corr. After each commissioner has handled a case to the point where a decision is to be made, the full commission will discuss the matter and instruct some member to write the order.

Severe Storm in Ohio

Both City and Interurban Traffic Hampered by Gale Which Piled Up the Snow

The blizzard which raged over the Middle West on Jan. 12 and 13 played havoc with both steam and interurban schedules. Few of the railroads entering Cleveland operated their trains Saturday night, and all trains through that day were hours behind time.

Traffic on the interurban roads entering Cleveland was greatly hindered and some of the runs had to be cancelled Saturday night. The Cleveland, Southwestern & Columbus Railway did not run any trains Sunday and the Lake Shore Electric Railway operated only between Cleveland and Norwalk. The other roads operated as nearly to their schedules as possible under the circumstances. The schedules of the Cleveland Railway were somewhat demoralized. The temperature at Cleveland was 8 deg. below zero most of the time, and the wind blew at 75 miles an hour.

CONDITIONS ELSEWHERE IN THE STATE

Information from Columbus was to the effect that the Ohio Electric Railway suffered considerable inconvenience on divisions south of that city, but had no trouble on the eastern division. On Jan. 13 all divisions were opened, except a short section near London on the Columbus-Springfield division. Local service over the lines of the company was delayed to a considerable extent.

At Toledo electric railway service was tied up almost completely on Jan. 12, as were all interurban trains. Some little improvement on the city railway was made the following afternoon, but it was thought that it would be twenty-four hours before the interurban lines would be able to begin operation again.

Electric railway traffic at Marion was suspended on Jan. 13 and the town was in darkness that night. Service on both the local city railway lines and interurban roads at Dayton was almost completely demoralized on the evening of Jan. 12. The same conditions prevailed at Tiffin, Mansfield, Bucyrus and almost every other point in the State.

Cincinnati was storm-bound with a temperature 16 deg. below zero and electric railway service was badly crippled on Jan. 12 and 13.

The temperature began to rise on Jan. 13 and by afternoon the official thermometer marked around 15 deg. above zero. This gave the roads an opportunity to get the tracks in shape again, although the prospects were that service would be somewhat irregular in many places for two or three days.

Commission Procedure Explained

Chairman Macleod Discusses the "Inside Workings" of Massachusetts Public Service Commission

At a recent hearing of the street railway investigating commission at Boston, Mass., Representative Hays of Brighton questioned F. J. Macleod, chairman of the Massachusetts Public Service Commission, regarding the board's methods of working on regulative problems. Mr. Macleod said that after public hearings were concluded on any matter the procedure depended on the character of the case and just how the case was left on the record. There were a number of cases that were disposed of on the day of the hearing. There were other cases, such as the fare cases, where the subject matter of the hearings was so controversial and where such a large amount of technical testimony was involved, that careful consideration by the commission of the evidence presented and any other evidence which it might be able to secure through its own investigation was absolutely necessary before any intelligent decision could be attempted.

The cases were usually assigned to different members of the commission to make a preliminary report for the consideration of the commission as a whole, and sometimes in a large case different branches or departments of the case were assigned to specific members, the whole report being made the subject of searching and critical examination by every member of the commission before it went out. All the members voted whether or not the order should be issued. No formal records were kept of the proceedings in executive session, but if there was any case where any commissioner desired to dissent from the finding of the majority, a record of the dissent was embodied in the report of the case. If, however, the commissioners were all agreed in the final results no specific record was made of the matters considered in conference.

COMMISSIONERS USUALLY IN AGREEMENT

In answering the question whether most of the orders represented a compromise between the commissioners, Mr. Macleod said:

"In certain phases of the opinion I presume it is true that they do represent in part an adjustment of different minds to the same problem. The commission has usually been able to agree upon the result to be reached, but it is not always in agreement in the beginning as to the exact method of expression in the report. The working out of the report and the phrasing of it in a form to which all the members of the commission can agree are matters that sometimes involve extended discussion and frequent conferences on the part of the commission."

Mr. Macleod knew of no such condition as the domination of the board by a minority. On this point he said:

"The commission is made up of five men, and whatever might be their other shortcomings they are men of very de-

cidenced convictions, and the result that has been reached has been, as I said before, more or less modified in order to reach some adjustment of conflicting personalities; but so far as I know there have been no serious dissensions in the commission on any matter of consequence, certainly not in the last two or three years."

Representative Hays asked if it was possible as a practical matter for all members of the commission to inform themselves of all questions of detail on matters coming before the board. Mr. Macleod replied that the field was so vast that it was impossible for any member of the commission, no matter what his industry might be, to cover personally the entire field and to feel that he knew the entire situation. The members were obliged to keep themselves informed so far as possible in regard to the most essential factors surrounding the condition of the different companies, and to deal with detailed phases of the company's operation in connection with specific problems presented to the board in specific cases. The chairman took issue with

the implication of Representative Hays that it had taken a long time to settle the rate cases before the board during the last three years, and he challenged that the time taken had been much less than that required by practically any other commission in the country in a case of equal importance. With respect to the Bay State Street Railway rate case counsel for the company had stated more than once publicly that in his opinion there never was a case in the history of regulation in this country where so many important controversial elements had been involved which was decided by a public service commission in so short a time as the Bay State rate case.

FIVE COMMISSIONERS BETTER THAN SEVEN

Mr. Macleod said that the commission was fortunate in having in its membership at this time one man, Commissioner Stone, who had had a long and exhaustive practical experience in the public service field, and also the services of Commissioner Eastman, who had had a long and distinguished career in connection with the investigation of the financial and accounting side of public service companies. The chairman held that a commission of five members was preferable to one of seven.

Better Public Relations

"Make a Friend a Day" Is the Advice of the Vice-President of the Atlanta Company to His Employees

W. H. Glenn, vice-president and operating manager of the Georgia Railway & Power Company, said some very pertinent things to the members of the Gas & Electric Club of that company at a recent meeting. His remarks about public relations are given in part below:

"Sometimes I wish we could forget that word 'company.' What do you mean by 'company?' It is an impersonal kind of thing, which anybody can 'cuss' or anybody can praise.

"I wish we could think of the company as a person, as an individual, and have the public adopt the same thought. For the company is human, after all. Not one human being, but many! What is a company? The stockholders delegate their business to the directors, the directors to the officers, the officers to the superintendents and department heads, these heads to the men on the job. So the company is, after all, just the employees themselves—just you and me and all of us.

BUSINESS DONE IN THE OPEN

"But this company is in a different position from a factory or a store. Our business is done out in the open, far from the supervision of the superintendents. In a factory, an employee in a bit of trouble may call at once on the superintendent for advice and help. Our motormen and conductors are at work in four counties. Our linemen are all over north Georgia. No

one is at hand to give directions when an emergency arises. They must depend upon their own judgment, their own initiative. Therefore, our men must be especially competent to deal with the public. It is an unusual thing to say, but none of our real business is done in this building. Our business is done outside.

"It is a serious business, more so than the ordinary. We handle thousands and thousands of lives every day on our cars. We are responsible for a powerful electric current traversing hundreds of miles of wire. Our business never ceases; our company never sleeps.

PUBLIC OPINION CAN MAKE OR BREAK THE COMPANY

"You have been reminded very often of the absolute necessity of our having the good-will of the public. We depend absolutely upon public opinion. It can make us or break us. We must gain franchises, awarded by city officials who are elected by the people. If the people are against us their attitude is reflected in the officials. It can affect us in the jury box. If a jurymen dislikes the company he cannot help but be influenced in his verdict, no matter how honestly he may try to be impartial.

"What is public opinion? Nothing more than the aggregate of individual or personal opinions. If we could do one big act that would win over public opinion at one sweep, it would be

Pennsylvania Association Meets

Fare Increases, Lighting Standards and Employment of Women Are the Principal Subjects Discussed

An informal meeting of the Pennsylvania Street Railway Association was held at the Harrisburg Club, Harrisburg, Pa., on Jan. 4. The principal subjects discussed were fare increases, possible standards for lighting and cleaning cars, and the employment of women.

The first subject was put on the program because of the fact that a committee of the association of which C. L. S. Tingley, Philadelphia, is chairman has the matter in charge.

The subject of standards for lighting and cleaning cars was suggested because Dr. H. F. Snow, chief engineer of the Public Service Commission, had requested that representatives of the electric railways should appear before the engineers' conference committee at Pittsburgh on Jan. 10 to present the views of the companies relative to certain standards.

The final topic was selected because the problem is one which the railways in the State are facing, but restrictions now imposed by the Department of Labor and Industry on the employment of women may affect some roads.

The meeting was well attended, and while no printed papers were presented and no definite decisions reached, there was a lively discussion on the different points under consideration.

Mr. Shonts on Terminal Problems

Theodore P. Shonts, president of the Interborough Rapid Transit Company, New York, N. Y., was the principal witness at the hearing on Jan. 3 before the West Side Improvement Commission, having to do with the removal of the present steam railroad tracks from the marginal way and streets along the Hudson River. Mr. Shonts stated that he had made a study of the whole problem of port and terminal development at the request of certain banking interests. If the railroads serving New York City would pool their properties or create a new organization and build proper connecting lines to a great common clearance yard the economy in power, coal and wages would be as great as in the West, where by similar

(Concluded from page 149)

easy. But we cannot do that. We must win one friend to-day and another to-morrow and another the day after. It is the only way, and we must never lose an opportunity to make a friend.

"You can't blame outsiders for criticizing what you criticize yourself. The best thing we can do is to do our own work so well that there will be no room for criticism. We do big things well only by doing all the little things well."

arrangements saving as high as 70 per cent has been effected.

Mr. Shonts believed the construction of tunnels would meet the situation much better than a bridge across the Hudson, the cost of which he estimated at \$42,000,000, while tunnels could be built for \$6,000,000 each. He said that subways through the crosstown streets would eliminate much of the present trucking. The tunnels would free the piers and harbor from the present carfloat congestion and leave them clear for ocean steamships. Mr. Shonts said his scheme to improve the city's port and terminal facilities was formulated in 1912 and 1913. He read into the record letters from John F. Stevens and William Barclay Parsons.

Mr. Shonts, as a more immediate method of relieving traffic congestion, suggested that short-haul traffic within a radius of 75 miles from New York City could be handled by motor trucks, perhaps through the agency of the express companies.

Hearings on New Bills Ended

Public Service Commission for the First District of New York Concludes Discussion of Proposed Legislation

The last hearing was held on Jan. 2 under the order of the Public Service Commission for the First District of New York calling for discussion of legislation which it was proposed should be submitted by it or by corporations under its jurisdiction to the Legislature at the present session.

Counsel for the Edison Electric Illuminating Company, Brooklyn, notified the commission on Jan. 2 that those companies did not approve of the commission's proposed amendment to Section No. 66 of the public service commission's law, which would give the commission power to suspend tariffs showing proposed increases of rates for gas and electric companies. The commission possesses such power in respect to transportation companies. The proposed amendment would have the effect of placing the burden of proof for justification of any rate increases upon the companies involved.

Objection was also made to an amendment of the law, which would add to the power of the commission to supervise and regulate the issuance of securities of gas and electric corporations. Arthur G. Peacock, representing the New York Railways, and Herbert J. Bickford, representing the Third Avenue Railway, also objected to similar provisions in respect to the issuance of securities of transportation companies. Mr. Bickford made the point that, inasmuch as the federal government had taken over control of the railroads, new railroad financing might be necessary in the near future under government auspices and the government might be embarrassed by provisions of law which would require lengthy valuations of railroad property. The hearing was then closed.

Joint Operation in San Francisco

Arrangement Suggested for Use of Tunnel by Private Company and Publicly Owned Line

City Engineer O'Shaughnessy of San Francisco, Cal., has made his report regarding a proposed arrangement with the United Railroads for an interchange of railroad facilities west of the Twin Peaks tunnel. The city engineer says that the policy of allowing the United Railroads to operate cars through the tunnel must be decided by the administration. He believes that an equitable arrangement can be made whereby the city's municipal lines will be allowed to operate over the tracks of the United Railroads in exchange for the right of the United Railroads to operate Sloat Boulevard cars through the tunnel.

BASIS OF THE REPORT

The report was the result of a request made by the Board of Supervisors that the city engineer see what arrangements could be made with the United Railroads for affording electric railway facilities to the people who paid for the building of the tunnel. He wrote a letter to General Manager von Phul of the United Railroads, suggesting the use of a part of the United Railroads tracks by the municipal cars past Ingleside Terrace and Westwood Park from the dead end of the tunnel line at the junction of Sloat Boulevard. Also the operation of municipal cars over a part of the United Railroads Parkside system from the dead end at Twentieth Avenue and Tavaral Street.

Sleet Causes Tie-Up at Boston

Heavy sleet and resulting flashovers on the third-rail shoe beam of a train on the Cambridge subway of the Boston (Mass.) Elevated Railway resulted in an interruption of traffic on the morning of Jan. 7 for about an hour and a half. Trouble began when the first eastbound train left Kendall Square station and attempted to traverse the ascending grade on the bridge crossing the Charles River Basin at the foot of Beacon Hill.

Due to flashovers, the shoe beam of the eastbound train leaving Kendall Square became so heated as to cause charring, and the smoke and flashing at the third-rail precipitated a panic among the passengers, many of whom were foreigners. A number of persons jumped through the car windows, much crowding took place, and minor injuries were sustained. During the tie-up and also during two other interruptions which occurred later in the morning from sleet difficulties, of fifteen and twenty-five minutes respectively, inbound and outbound traffic was routed between Boston and Central Square, Cambridge, mainly over the Harvard Bridge lines and Boylston Street subway.

The affair was greatly exaggerated by the local newspapers.

News Notes

Toronto Favors Taking Over Railway.—The ratepayers of Toronto, Ont., voted on Jan. 1 about 39,000 to 3700 in favor of the city acquiring the system of the Toronto Railway in 1921, the year that the present thirty-year franchise of the company expires.

Company to Vote on Philadelphia Lease on Feb. 8.—A special meeting of stockholders of the Philadelphia (Pa.) Rapid Transit Company will be held on Feb. 8 to take action on the proposed lease and agreement with the city of Philadelphia, which has been passed by Councils and approved by the Mayor.

Increase in Wages in Pottsville.—The Eastern Pennsylvania Railway, Pottsville, Pa., has announced an increase of 3 cents an hour in the wages of its crews, making the wage of first-year men 31 cents an hour and those of longer service 33 cents an hour. Two cents an hour will be added to these rates on June 1 next.

Municipal Line to Continue.—At a special session of city officials of Yazoo City, Miss., recently following the presentation of a petition containing the names of between 275 and 300 citizens, it was decided to continue the 4-mile local municipal railway in operation. This decision rescinded the action of the Mayor and the Board of Aldermen in special session some time previously.

Fund for Soldiers Helped.—The International Railway, Buffalo, N. Y., cooperated with one of the local daily newspapers recently by placing tin boxes in each of its cars in which passengers could drop money to be used for the "Smokes for Soldiers" fund. The boxes were placed alongside of the regular fare boxes in each car. More than \$700 was collected during the day.

Trenton Argument Set for February.—Argument will be advanced in the February term of the New Jersey Supreme Court on the writ of certiorari of the Trenton & Mercer County Traction Corporation to quash the indictments returned for the city against the directors and officers of the company for the illegal erection of poles and stringing wires on certain streets of Trenton, N. J.

Action on St. Louis Settlement Postponed.—The settlement ordinance for the United Railways, St. Louis, Mo., was not reported on Jan. 4 at the first meeting of the Board of Aldermen after the holiday vacation. The public utilities committee had not yet passed upon several vital amendments proposed by City Counselor Daues and C. E. Smith, the city's consulting engineer, with the sanction of Mayor Kiel.

Valuation of Lines at Dallas.—The Northern Texas Traction Company,

Fort Worth, Tex., has designated the J. G. White Engineering Company, Dallas, to make a survey and fix valuations on the Oak Cliff lines, owned by the Fort Worth company and leased by the Dallas Railway. The values will be used as a basis for replacement cost after the leases expire. The Dallas Railway and the supervisor of public utilities have approved the appointment of the engineering company.

New Officers for Portland Club.—At the first annual meeting of the Employees' Social Club of the Portland Railway, Light & Power Company, Portland, Ore., held on the evening of Jan. 3, B. F. Boynton, claim agent for the company, was re-elected president for the ensuing year. Other officers elected were A. B. Go'tchalk of the planning department, first vice-president; J. F. Roach, instructor of motormen and conductors of the interurban lines, second vice-president; R. R. Robley, electrical operating engineer, secretary and treasurer.

Municipal Ownership Urged for Oakland.—Mayor John L. Davie of Oakland, Cal., in his annual message to the City Council urged that immediate action be taken toward municipal ownership of the electric railways of that city. In line with the proposal he advocated complete revision of the city charter, the appointment of an efficiency engineer to take up the city's transportation work, and the appointment of a committee of citizens to take up the problem. The executives of other East-Bay cities are said to incline toward the opinion that such ownership should be vested in a public utilities district that would embrace the entire transportation system of Alameda and Contra Costa Counties.

First Car Through Twin Peaks Tunnel.—The first passenger car of the San Francisco (Cal.) Municipal Railway passed through Twin Peaks Tunnel on Dec. 31. The run was made from portal to portal, a distance of approximately 3 miles, in six and one-half minutes. M. M. O'Shaughnessy, city engineer, and Fred Boeken, superintendent of the Municipal Railway, rode on the car. They considered the trial trip very satisfactory. It was announced that regular service through the tunnel would start about Jan. 15, with cars running to Sloat Boulevard and Junipero Serra Boulevard. As soon as arrangements with the United Railroads are completed, service will be provided on Ocean Avenue and to the beach.

Commission Seeks to Speed Transit Construction.—In order to speed progress on the construction of some of the new dual system lines, the Public Service Commission for the First District of New York has secured from the priorities committee in Washington promise of priority certificates for steel and other materials necessary for the completion of parts of the system. The committee had at first declined to issue such certificates in respect of orders for steel, which was very much needed. The

commission is particularly desirous of obtaining certain steel for the yard improvements at East New York, Brooklyn, and until this steel is received certain changes cannot be made which will permit the operation of all-steel cars on some of the Brooklyn elevated lines.

Niagara Power Order Affects Railway.—The International Railway, Buffalo, N. Y., will be affected by the order of the war department seizing all of the electric energy produced, imported and distributed by the Niagara Falls Power Company, the Hydraulic Power Company and the Cliff Electrical Distributing Company, Niagara Falls, N. Y. There will be a complete redistribution of electric power among industries in western New York so that war industries will have all the electric power they need. The railway will be forced to rely largely upon its steam-generated power. Fortunately the railway's steam plant has been held in reserve in case of a breakdown in the Niagara Falls power.

New Dallas Power Arrangements.—Under a contract just approved by the supervisor of public utilities of the city of Dallas, Tex., the Texas Power & Light Company will furnish 5000 hp. daily in current to the Dallas Power & Light Company for use in operating the cars of the Dallas Railway. Since the organization of the Dallas Railway under the Strickland-Hobson management, about 30 per cent of the current used in operating the cars of the system, or current for operating the Oak Cliff lines, has been purchased from the Northern Texas Traction Company, Fort Worth, a Stone & Webster company that owns the Oak Cliff lines and the Dallas-Fort Worth Interurban. The Northern Texas Traction Company asked to be relieved of this contract, stating that all its current was needed on its line and at Handley. The new contract effects a marked saving to the Dallas Railway.

Association Meeting Programs

New England Street Railway Club

The meeting of the New England Street Railway Club on Jan. 24 at the Hotel Somerset, Boston, Mass., will be annual "Manufacturers' Night."

National Foreign Trade Council

The executive committee of the National Foreign Trade Council announced that "owing to the railroad congestion and the desire of the council to cooperate with the government in the relief of the situation due to the war," the dates of the Fifth National Foreign Trade Convention to be held at Cincinnati, Ohio, have been changed from Feb. 7, 8 and 9 to April 18, 19 and 20. No change is contemplated in the theme of the convention or in its plan and scope as outlined in the *ELECTRIC RAILWAY JOURNAL* of Jan. 5, page 56.

Financial and Corporate

Reserve Board to Pass Upon New Financing

Plans for New Issues of Securities Are Being Submitted by Private Corporations Voluntarily

Secretary McAdoo makes the following statement:

"In my annual report to Congress, dated Dec. 3, 1917, I referred to the importance at this time of avoiding unnecessary capital expenditures in both public and private enterprises. While no specific authority has been conferred upon me to approve or disapprove new undertakings, a number of corporation executives, bankers and municipal officials, inspired by the idea that they should do nothing which would in any way retard our efforts in the prosecution of the war, have submitted to me plans for new enterprises or new issues of securities.

FEDERAL RESERVE BOARD TO PASS UPON PROPOSALS

"It is now apparent that the government may count upon a full measure of co-operation on the part of the States, municipalities and private corporations, with the result that a large number of such plans for future developments will be submitted from time to time. It, therefore, becomes necessary that each of these proposals receive adequate consideration and that a recommendation be made without delay as to the course to be pursued.

"Pending action by Congress, I have requested the Federal Reserve Board to pass upon such proposals as may be submitted to them or referred to them by me, and advise whether or not such expenditures of capital or such issues of new securities should be made.

CORPORATIONS URGED TO CONFER WITH BOARD

"The board has consented to undertake this responsible work, and I therefore strongly urge upon the corporations and the bankers of the country that before making contracts requiring the use of labor and material, or before placing new issues of securities or agreeing to purchase new issues of securities, they confer with the Federal Reserve Board, in order that it may determine whether the undertaking covered by the proposals is necessary for the public health and welfare, or contributes directly toward winning the war."

Another development in connection with corporate financing is the fact that the bond department of the Equitable Trust Company, New York, N. Y., has announced the details of a plan for economical co-operation among independent bond dealers and banks with bond departments throughout the country. The plan provides for the elimination of a great deal of the local machinery now

necessary in the distribution of securities. It will furnish service to local dealers and banks through a central organization. Many dealers and banks throughout the country have already become participants in the plan, as it meets the necessity for "shortening sail" due to war conditions and the lack of trained bond men.

One prominent dealer said of this plan:

"I now feel that the curtailment of my organization, due to the army draft and stringent conditions in the bond business, will not affect the service I can render my clients. In fact I feel that my service has been vastly improved, and I am better able to meet the competition of the large international bond houses maintaining local offices."

The plan is reported as being adopted rapidly by dealers and banks with every prospect for its success as an economical war measure in the security business.

Pittsburgh Protective Committee

Announcement is made that a protective committee for holders of the bonds of the United Traction Company, Pittsburgh, Pa., and all bonds affected by the default of interest on Jan. 1 of the bonds under the mortgage dated July 9, 1897, has been formed. This committee is composed of Thomas S. Gates, chairman; B. Howell Griswold, Jr., J. R. McAllister, J. H. Mason, C. S. W. Packard, A. C. Robinson and George H. Frazier. The amount of United Traction Company bonds is \$10,000,000 bearing 5 per cent interest and maturing on July 1, 1997. Defaults in interest payments due Jan. 1 last have also been announced in the case of other mortgage bonds of railways embraced in the Philadelphia Company system at Pittsburgh.

In an announcement given out by Brown Brothers & Company and Alexander Brown & Sons, it is stated that immediate notice will be given by the committee of the name and address of the depositaries. All holders of bonds are advised to deposit their bonds promptly in accordance with the terms of such notice.

Unprofitable Track Torn Up

The Dayton, Springfield & Xenia Southern Railway, Dayton, Ohio, proceeded on Jan. 2 to tear up its track between the towns of Beavertown and Spring Valley, Ohio, a distance of 11½ miles. Operation was discontinued on this branch line on Dec. 1. The property has been in operation since 1899 and has hardly paid the operating expenses. It is a branch line connecting with the main line at Belmont. A portion of this branch line from Belmont, 3 miles, to Beavertown has been profit-

able and will be continued in operation.

The authority for discontinuing service and selling the road as junk was granted to the company by virtue of a special act recently passed by the Legislature of Ohio, which conferred the power upon the Utilities Commission to hear cases of this kind and grant release despite any conditions in existing franchises which might ordinarily prevent this. The Utilities Commission, after the passage of the act, heard the case and on Nov. 27 issued an order authorizing the company to stop operations any time after Dec. 1.

Ford, Bacon & Davis Acquire Ithaca Properties

Ford, Bacon & Davis, New York, N. Y., have acquired a financial interest in the Central New York Southern Railroad Corporation, Ithaca, N. Y., and have taken over the management of that property. The company operates a 40.28-mile electric and steam railroad between Auburn and Ithaca, and also controls the Ithaca Traction Corporation, the local electric railway in Ithaca. The Central New York Southern owns four steam locomotives, two electric locomotives, two gasoline motor cars, one electric motor car and fifty-five other cars. The Ithaca Traction Corporation owns forty-one motor cars and three other cars. It also owns the power station which supplies electrical energy to both railway companies, as well as to the electrical lighting company in Ithaca.

Suit Maintains Legality of Indebtedness

A suit to recover \$1,925,000 and interest at the rate of 7 per cent from Dec. 1, 1916, was filed in the U. S. District Court at San Francisco on Dec. 14 against the United Railroads, San Francisco, by the California Railway & Power Company of Delaware. The complaint declares that the sum demanded is the unpaid portion of a \$2,000,000 loan extended on Dec. 23, 1912.

According to Jesse W. Lilienthal, president of the United Railroads, the suit was brought with his sanction and does not jeopardize the readjustment plans for the United Railroads. The action was taken merely because the statute of limitations would become operative against the debt on Dec. 14 and it was desired to maintain the legality of the debt for the protection of the noteholders. In the readjustment now under way plans will be included for taking care of this loan.

The complaint declares that the California Railway & Power Company of Delaware on Dec. 23, 1912, extended a loan of \$2,000,000 to the United Railroads in the form of twenty notes for \$100,000 each. The money was to be repaid in twenty equal annual installments. The complaint says that only \$75,000 of the principal has been returned and that no interest has been paid since December, 1916.

Financial News Notes

Change in Name.—The name of the Ogden, Logan & Idaho Railway, Ogden, Utah, was changed on Jan. 1 to the Utah-Idaho Central Railroad.

New Director for Dayton Street Railway.—Harold E. Talbott, Jr., has been elected a director of the Dayton (Ohio) Street Railway to succeed the late George Schantz.

Preferred Dividend Passed.—The New Orleans Railway & Light Company, New Orleans, La., omitted the regular quarterly dividend on the preferred stock, due on Jan. 1. No dividends have been paid on the common stock of the company since the one made in December, 1916.

New Note Issue All Sold.—Bonbright & Company, Inc., New York, N. Y., announce they have sold the new issue of \$1,500,000 of 6 per cent bond-secured gold notes of the United Light & Railways Company, Grand Rapids, Mich., dated Nov. 1 and due May 1, 1920. The notes were offered at 96% and interest, yielding 7½ per cent.

Preferred Stock Dividend Passed.—The Waterloo, Cedar Falls & Northern Railway has deferred the payment of its 1917 preferred stock dividend. The earnings do not justify the payment of the dividend and the directors did not wish it paid out of surplus. The company has \$1,106,100 of 6 per cent preferred stock outstanding, which was issued in 1912-1913.

Another Road Suspends.—The Carolina Traction Company, Rock Hill, S. C., operating 3 miles of railway with storage-battery cars, has suspended service. James S. White, secretary of the company, places the blame for the suspension on the present prohibitive prices of materials and supplies. He is reported to have said that he sees no chance for the early resumption of service.

Stock Issue Decreased.—The San Antonio (Tex.) Traction Company has filed an amendment to its charter in the office of the Secretary of State at Austin decreasing its capital stock from \$2,500,000 to \$300. All the assets

of this company were transferred to the San Antonio Public Service Company on Sept. 1, 1917, under terms outlined previously in the ELECTRIC RAILWAY JOURNAL.

Sale Under Foreclosure Confirmed.—Judge Cummings in the Northumberland County Court has confirmed the sale of the property of the Northumberland County Traction Company on Nov. 8, 1917, for \$200,000 to Allen P. Perley, John L. Hall and David A. Horne, Williamsport, representing the bondholders. Suit against the company to foreclose was brought by the Philadelphia Trust Company, trustee, under an issue of bonds to the amount of \$400,000.

Road for Sale.—The 16-mile electric line of the Mexico Investment & Construction Company, Mexico, Mo., is being wrecked and the rails, trolley wire, contents of the power house and the cars are being advertised for sale through Judge W. W. Botts, Mexico, Mo., secretary and treasurer of the company, or C. J. Harris, Fullerton Building, St. Louis, Mo. The plan to abandon the property was referred to in the ELECTRIC RAILWAY JOURNAL for Nov. 17, 1917, page 921, and Jan. 12, 1918, page 105.

Sale of Fort Wayne Collateral.—Special Master George C. Holt will sell at public auction in New York City on Jan. 28 in one lot \$1,941,000 of the first and refunding mortgage 5 per cent gold bonds of the Fort Wayne & Northern Indiana Traction Company, Fort Wayne, Ind., dated Sept. 1, 1912, pledged as security for the issue of \$1,146,000 of 6 per cent five-year collateral gold notes of 1914. The property is not to be sold for less than an amount sufficient to satisfy the principal of the \$1,164,000 of notes, with accrued interest, after payment of all costs and expenses.

Common Dividend Passed.—The Little Rock Railway & Electric Company, Little Rock, Ark., has passed the semi-annual dividend of 3 per cent on the common stock payable ordinarily on Jan. 1. The company was at an expense of about \$200,000 in furnishing light, power and railway service to the cantonment at Little Rock, and it is stated unofficially that the officers of the company decided that it was better to put the dividend over and pay for the improvements out of the cash returns than to attempt to borrow with rates for money as high as they are at this time.

Dallas Return Decreases.—The consolidated car lines in Dallas, Tex., under the Strickland-Hobson franchise earned 3.85 per cent on the total investment during the month of November, 1917. In October the company earned 6.17 per cent. The gross earnings were lower by \$29,325 during November than during October, owing to jitneys and the ending of the State Fair. After expenses and required appropriations were taken from gross earnings, the company had a balance of \$24,556 available for the authorized return of 7 per cent on the investment. This figure was \$4,323 less than the net receipts during the same month in 1916.

Interstate Dividend Passed.—The directors of the Interstate Railways, Camden, N. J., have passed the 3 per cent semi-annual preferred dividend due this month. This action followed failure of certain leased companies to pay their rental. They will be given until April 1 to make up the rental before any action is taken respecting the leases. Increased operating expenses are given as the cause of the difficulty. The underlying companies of the Interstate Railways are in four groups operating in and around Trenton, Wilmington, Reading and Wilkes-barre. The preferred stock of the company is cumulative at the rate of 6 per cent amounting to \$60,000 per annum, there being \$1,000,000 of stock outstanding. Until now 3 per cent semi-annually has been paid regularly since the company began operations of the various properties in 1911.

Dividend Passed by Puget Sound Company.—The directors of the Puget Sound Traction, Light & Power Company, Seattle, Wash., passed the dividend normally payable on Jan. 15 on the \$14,793,667 of 6 per cent cumulative preferred stock. Frederick S. Pratt, chairman of the board, issued a statement in which he said that the unusual business activity in the Puget Sound territory had called for substantial capital expenditures by the company and that the increases in the plant had been made at a time when it was impossible owing to the prevailing investment market conditions to finance them permanently on a reasonable basis. The result was a floating debt of \$1,605,000. Other expenditures are in prospect, and the directors believed that the wisest course was to keep the unsecured debt within reasonable limits and to make no distribution to the stockholders.

Electric Railway Monthly Earnings

COLUMBUS RAILWAY, POWER & LIGHT COMPANY, COLUMBUS, OHIO						EAST ST. LOUIS & SUBURBAN COMPANY, EAST ST. LOUIS, ILL.					
Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income	Period	Operating Revenue	Operating Expenses	Operating Income	Fixed Charges	Net Income
1m., Nov., '17	\$359,990	*\$286,827	\$73,163	\$45,919	\$27,244	1m., Nov., '17	\$329,267	*\$223,856	\$105,411	\$66,944	\$38,467
1 " " '16	316,468	*184,587	131,881	42,862	89,019	1 " " '16	278,467	*168,019	110,448	63,410	47,038
12 " " '17	3,975,871	*2,853,469	1,122,402	552,618	569,784	12 " " '17	3,630,797	*2,422,740	1,208,057	779,247	428,810
12 " " '16	3,500,760	*2,069,138	1,431,622	513,997	917,625	12 " " '16	2,970,054	*1,777,194	1,192,860	754,265	438,595
BERKSHIRE STREET RAILWAY, PITTSFIELD, MASS.						GRAND RAPIDS (MICH.) RAILWAY					
1m., Nov., '17	\$80,855	*\$98,859	†\$18,004	\$26,845	†\$41,764	1m., Nov., '17	\$100,702	*\$77,401	\$23,301	\$18,619	\$4,682
1 " " '16	80,136	*72,091	8,045	27,550	†\$19,277	1 " " '16	102,921	*67,706	35,215	17,322	17,893
11 " " '17	999,813	*904,933	94,880	303,030	†\$200,665	12 " " '17	1,305,807	*884,788	421,019	216,010	205,009
11 " " '16	912,408	*757,523	154,885	289,117	†\$132,099	12 " " '16	1,290,412	*840,470	449,942	181,654	268,288

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

Traffic and Transportation

Traction Expert for Buffalo

Incoming Administration Retains Mr. Brackenridge to Survey Traffic Conditions and Report to It

John C. Brackenridge, formerly with the Brooklyn (N. Y.) Rapid Transit Co., has been retained by the City Council of Buffalo, N. Y., to make a survey of traffic conditions on the Buffalo lines of the International Railway. In addition Mayor George S. Buck has appointed a special committee of eight citizens to co-operate in the survey. An appropriation of \$2,000 has been made by the City Council to carry on the preliminary work. This fund is separate from the \$50,000 appropriation granted to the Corporation Counsel with which to appraise the physical properties of the company in the campaign for a 4-cent fare within the city limits.

In his first message to the City Council the new Mayor called attention to the railway service and urged the creation of a bureau of public utilities to deal with the railway problem. This bureau would represent the city at all hearings before the Public Service Commission. The Mayor also pointed out that if private ownership of the railway with public regulation proved a failure, steps will be taken for public ownership.

PRESIDENT CONNETTE EXPLAINS

E. G. Connette, president of the International Railway, has issued a public statement in which he expressed the desire to co-operate with the proposed bureau of public utilities and the newly appointed committee which is making a survey of traffic conditions during the rush hours. Mr. Connette also placed the blame for conditions during the last month upon the weather and the company's inability to secure the new cars which were ordered a year ago.

The police department has been instructed to place patrolmen at all congested points throughout the city to aid in loading passengers and to facilitate the movement of cars. Mounted patrolmen have been placed along the main arteries of travel to keep so-called "track-hogs" from blocking traffic.

Mr. Brackenridge is being retained by the city at the rate of \$50 a day. He has been asked to remain in Buffalo for one month and to make a report to the City Council at the end of each week. Daily reports are also asked on specific work suggested by the Mayor and the members of the citizens' committee.

Soon after the first meeting of the new citizens' committee, Mayor Buck went to Albany for a conference with Governor Whitman in reference to the

railway situation in Buffalo. The Mayor is said to have urged the Governor not to reappoint the two members of the Public Service Commission whose terms are soon to expire. He advocated the appointment of a Buffalo man on the commission.

5,148,063 Potential Competitors

This Is the Total of the Transportation Army of Automobiles That Confronts the Electric Railways

The Chicago *Tribune* of Jan. 6 presented the first detailed figures on automobile registrations in the United States during 1917, wired by its correspondents at the various state capitals after the final tabulations on Dec. 31. Comparison with the 1916 reports shows that 1,629,325 more licenses were issued than during the previous year—an increase of about 46 per cent—and that the number of motor vehicle registrations has reached the amazing total of 5,148,063.

The figures include both passenger cars and motor trucks, many of the states making no distinction between the two in issuing licenses. As nearly as such a count could be made, they represented the actual number of motor vehicles now being operated in the country, for while some few cars have been registered in more than one state, this is more than offset by the fact that some states are just beginning the work of registration. In Texas alone, for example, the authorities estimate that 15,000 cars escaped the operation of the new state motor vehicle law.

Fares Raised in Reading

Six-Cent Fares Extended from Suburban Lines to All City Properties of the Company

The Reading Transit & Light Company, Reading, Pa., put a 6-cent fare into effect on all its city lines in Reading, Norristown, Roxborough and Lebanon on Jan. 10. Fares on the suburban lines were increased to 6 cents on Nov. 6, so that on all the lines the fare unit is now 6 cents. The company issued a statement in which it said:

RAISE FARES OR CURTAIL SERVICE

"It came to a case of either raising the fares or greatly curtailing the service and abandoning all plans for improvements and betterments that we have been carrying out for several years. We realized, too, that our motormen and conductors were deserving of higher wages. Out of the very first additional revenue which we expect to realize from the increased fares, in-

creased wages amounting to \$40,000 a year will be paid out to the men.

"We concluded that the public preferred paying 1 cent more for their ride to any curtailment of the service, as inadequate electric railway service is a poor advertisement for any city.

"What we will realize from the additional cost will not mean any great increase in revenue—nothing compared to our constantly increasing expenses. It will not mean any increased dividends to stockholders. It is hoped that it will yield sufficient to help us bear the heavy burden of increasing operating costs that has been confronting us at every turn for several years and that is becoming greater each day."

Several of the municipalities have filed protests against the increase in fares, and the Public Service Commission has fixed Feb. 8 as the time for a hearing in the matter.

In the meantime the company is issuing receipts to passengers for the additional cent that is being collected, so that if the commission should decide that the 5-cent fare shall be restored, the 1 cent additional can be refunded.

One-Man Cars in Tampa

Safety Features Demonstrated for Public Benefit—Name of Operator on Duty Posted Conspicuously

Fifteen of the twenty-three new type, one-man cars purchased by the Tampa (Fla.) Electric Company were put in operation on Jan. 9.

During the trial run the safety features were shown when Mayor McKay of Tampa was invited to operate one of the new cars for a few blocks. As the Mayor was rounding a turn he lifted his hand from the controller handle to raise his hat to a lady on a passing car, and immediately the emergency brakes were automatically thrown on, the power cut off, the rails sanded and the doors unlatched.

The new cars are the first of the closed type of equipment which have ever been used in Tampa, and during the first day they were crowded with persons trying out the novelty. Much rivalry has existed among the crews for places on the new cars. Another feature of the service is the name of the car operator. This is posted conspicuously toward the front end.

In speaking about the car C. O. Birney said:

"The average passenger load in most cities is about fifteen, and to take care of overloads, this car is designed to seat thirty people, which seems to meet the requirements of 90 per cent of the cities of the country. The car measures 27 ft. 9½ in. over all, is 8 ft. wide and of the continuous sash construction. The body is made of steel, the upper windows are stationary and the lower sash raises in the sides of the car and drops in the vestibules. The trucks are ball bearing with a combination leaf and spiral spring. The motors are also ball bearing and designed for high speed and rapid acceleration."

Hearing on Indiana Freight Rates

Interurban Companies Desire to Put Into Effect Schedule Comparable With That of Steam Lines

The Public Service Commission of Indiana held a hearing on Jan. 4 and 5 in a series of cases involving the petitions of many of the interurban railroads of the State for authority to increase their freight rates on the Zone A plus 15 per cent schedule, which would be comparable to the basis of freight rates now in effect on the steam railroads.

F. D. Norveil, general passenger and freight agent of the Union Traction Company of Indiana, appearing as a witness, was questioned by Arthur W. Brady, president of that company, and introduced several exhibits showing, among other things, a set of terminal costs of freight handling at the Indianapolis freight house of the company.

TERMINAL COSTS AN IMPORTANT FACTOR

Shippers who were present at the hearing and members of the commission immediately sought to find out whether terminal costs at Indianapolis were the average ton of freight handled were greater or less than terminal costs at the stations in small towns along the lines, such as Pendleton or Noblesville.

When Mr. Norveil stated that he could give no exact data on the subject, but declared it to be his opinion that the costs at the smaller terminals were greater than at the larger terminals for each ton handled, Commissioner Edwards pointed out that in a recent rate case before the Interstate Commerce Commission exactly the reverse had been found to be true with reference to the steam roads. Mr. Brady then repeated a former statement to the effect that the interurbans were not comparable with the steam roads.

After many questions by the shippers and the commissioners the companies stated that they would furnish detailed information based on costs of terminal handling of freight and costs of the road hauls and revenues. Mr. Brady said that his road would attempt to show that it is costing the interurbans more to carry each ton of freight than it is costing the steam railroads.

TECHNICAL RATE TESTIMONY

During the continuation of the hearing on Jan. 5 technical testimony was introduced by the companies concerning rates and the elements of costs entering into the interurban freight business, as compared with the same items of cost on the steam railroads. A statement made in a comparison with three of the steam railroads operating in the State showed that the gross revenue per mile of main track of two of these roads was more than \$28,000, while that of the interurban railway was only \$5,533. With an assumed operating ratio of 65 per cent of gross

earnings, the balance available for fixed charges was only \$1,936 per mile of main track in the case of the electric road, as compared with more than \$9,800 in the case of the steam railroads.

Double Stops Eliminated

Investigation by W. C. Culkins, the director of street railroads of Cincinnati, Ohio, on his own motion relative to double stops at various street intersections on the lines of the Cincinnati Traction Company, disclosed the fact that at many street intersections cars made what were known as "safety stops" on the near side and an additional "service stop" on the far side of the street. This practice was the result of the far side stop outside of the business section of the city combined with the necessity of making the safety stops on the near side where the tracks cross those of the other lines, or for other well-established operating reasons. It was found that there were 338 of these double stops which could be reduced to single stops not only without any unreasonable inconvenience to the public but to the great improvement of the service. It was therefore ordered that the Cincinnati Traction Company discontinue the stopping of its cars for passengers at locations specified in the order of Mr. Culkins and remove the white stripes indicating such stops.

Man Shortage in Seattle

135 Men Leave Traction Company Service in Twenty-five Days—Women Will Likely Go on Cars

Officials of the Puget Sound Traction, Light & Power Company, Seattle, Wash., are giving serious consideration to the suggestion of A. L. Valentine, superintendent of public utilities of Seattle, that women be employed as conductors on the cars of that company to meet the shortage of labor. A. L. Kempster, manager of the company, declared that the question would be decided shortly. He said that if women were employed they would receive the same wages as were now paid to the men. Wives or other relatives of former employees of the company now in the military service of the United States will receive the first opportunity. Then will come the wives of men serving the colors. The third class will be general. The company is exhausting every means to retain a complete working force, but to date has been unsuccessful, because of the gradually increasing number of men leaving the employ of the company to engage in shipbuilding or other work where higher wages are paid. Mr. Kempster said:

"We realize that the insufficient service is very annoying and unsatisfactory. We know further that in these times

maximum service should be given, and we want to give it, but we cannot get the men. The only reason that we will hire women, if we do, is because we cannot get men for the cars. The enormous demand of the shipyards and other war industries is rapidly depleting our ranks. From Dec. 1 to Dec. 26 135 men left the service."

Chicago Traction Report

Board of Supervising Engineers, Chicago Traction, Discusses Service Standards

The eighth annual report of the Board of Supervising Engineers, Chicago Traction, covering the period ended Jan. 31, 1915, has just been issued. This contains the usual statement of financial and operating statistics of the surface lines in Chicago and the report of the engineering department covering track extensions, power distribution, electrolysis and cars. There is also a discussion of service standards, most of this material having been used in a report to the City Council some time ago. It is an argument in favor of a standard based on available floor area for standing passengers, and the board is on record as opposing the non-rush standard prevailing in some cities where the companies are required to provide more seats than the average number of passengers during these periods. In this connection the report says:

"When it is considered that to sustain an economic balance between receipts from fares and expenses for operation every empty seat operated during non-rush hours may mean practically a standing passenger during rush hours, it is clear that liberality in service during non-rush hours can be carried to extreme. With a non-rush interval as short as fifteen minutes it is believed that as liberal service has been proposed in this ordinance as is reasonable under existing conditions of operation."

Rehearings Asked in Jitney Cases

Motions for rehearing have been filed in the two jitney cases in Dallas, Tex., recently decided by the Court of Civil Appeals adversely to the jitneys. Both motions renew contentions made by the losing parties in the two suits.

In one case, the Jitney Association was granted an injunction restraining the city from enforcing the ordinance regulating jitneys. This case was reversed and the injunction set aside by the Appellate Court.

In the other case, styled Henry D. Lindsley et al., vs. the Dallas Consolidated Electric Street Railway, in which the railway was granted an injunction restraining the city in enforcing the ordinance initiated by the jitney drivers and adopted on the face of the returns in a referendum election, the Appellate Court continued the injunction in force. The city seeks to have this injunction set aside that it may enforce the initiated ordinance.

New Fares for Spokane

Cut Rate Tickets Done Away with in New Tariffs Filed by Traction Lines

New fare schedules have been filed with the Public Service Commission at Olympia, Wash., by the Spokane & Inland Empire Railroad and the Washington Water Power Company, Spokane, which provide that school tickets shall be 4 cents each instead of 2½ cents, and that the general sale of eleven tickets for 50 cents or 110 tickets for \$5 shall be discontinued. Tickets for pupils are to be on sale only at the general offices of the company. Charges for special cars are to be \$6 for the first hour and \$3 an hour thereafter. Newspapers are to be transported at 25 cents for 100 lb. The regular fare is continued at 5 cents, with transfer privileges. Children under five years of age will continue to be carried free when accompanied by parents.

INCREASE ABSOLUTELY NECESSARY

Waldo G. Paine, vice-president and traffic manager of the Spokane & Inland Empire Railroad, said:

"An increase in our revenue is absolutely necessary to offset the constantly rising cost of labor and material. We cannot continue to sell our only commodity—transportation—for the price established years ago while the cost of doing business grows greater with each succeeding month.

"Our employees are receiving from 20 to 40 per cent more pay than they did five years ago. They deserve it and the company fully realizes that the cost of living has advanced in like proportions. But while the cost of labor has been steadily going up the cost of material has been increasing at an even greater rate.

"While these costs have been climbing we have had no increased revenue for an offset. Instead of that we have been compelled to keep up our service and to buy new equipment, although our passenger business has fallen off, due largely to automobile transportation. It is impossible to lower our standard of service and we have had no side lines to sell—no other commodities which could be pushed on the market at a profit to balance losses sustained on our chief product.

SERVICE AT A LOSS

"These conditions have been growing more and more burdensome and, like other electric railways, we have been considering an advance in rates for a long time. We have been reluctant to take the step, but we believe that when the public knows that we have been operating at an actual loss of many thousands of dollars a year they will see the necessity. Unless our stockholders and bondholders receive some return the business will not be attractive enough to keep up the investment and to better the service.

"The additional revenue produced by discontinuing the sale of tickets is only a small portion of the advances al-

ready granted the men employed on the city lines and other means of increasing the revenue must be speedily found if we are to continue the present service. The solution is either increased revenue for the company or a reduction in the service furnished to the public.

1,700,000 MORE PASSENGERS,
BUT AT A DEFICIT

C. S. MacCalla, vice-president and general manager of the Washington Water Power Company, said:

"The cost of everything going into the business is increasing rapidly. Although we carried 17,305,515 or 1,700,000 more passengers in 1917 than in 1916, we closed the year with a deficit of about \$60,000 on our transportation system, and such a condition as that cannot continue."

Late Milwaukee-Chicago Train Popular

Electric Road Meets a Business Need to Which the Steam Lines Were Not Alive

The Chicago, North Shore & Milwaukee Railroad sensed the need for a late hour fast train from Milwaukee to Chicago, and on Nov. 1 installed a new service which is proving by its popularity that it fills a particular need. Many business men, after completing transactions in Milwaukee, are desirous of taking late trains out of Chicago for other points. The last steam train between the two cities leaves Milwaukee at 9 p. m., so that unless one has completed the purposes of his visit to Milwaukee very early in the evening he is unable to get any of the numerous trains which leave Chicago between the hours of 12 and 3 o'clock in the morning.

The new North Shore train leaves Milwaukee at 11.15 o'clock, and arrives at Evanston, Ill., at 1.15 a. m. It makes only the principal stops en route. On the way the destinations of those passengers bound for points in Chicago are listed by the conductor as he collects fares. Then upon arriving at Central Street, Evanston, the Chicago passengers find a special two-car elevated train awaiting them, which proceeds over the elevated structure, making only those stops required by the passengers, and continuing on to Twelfth Street, the point nearest to the Illinois Central depot. The train is due at this point at 1.45 a. m., so that the 2.10 train on the Illinois Central for Springfield and St. Louis may easily be caught, likewise the 2.15 train on the Michigan Central for Kalamazoo, Jackson and Detroit.

By coming through the city to Twelfth Street, Chicago, all the depots are served within easy walking distance, and by stopping only at necessary points it is possible to make the entire trip from Milwaukee to Twelfth Street in two hours and thirty minutes. An average of 200 passengers are hauled out of Milwaukee every night.

Monongahela Has a Slogan

"Service" Is the Word—In Its Own Paper the Company Tells What It Means

The Monongahela Valley Traction Company, Fairmont, W. Va., has adopted as the design for a slogan and trademark a circle in which is lettered about a monogram of the letters "M. V. T., Railway Gas—Electric—Service." Of the design the company says in part in an editorial in its magazine for the employees: "The design is just a little thing; there are but four



words of the inscription, but to the company and to the men it is one of the biggest things the past year has brought forth. How much it will come to mean to the public that rides on the street cars, that uses power, that consumes gas, will depend on us, individually and collectively.

"It is to be noticed that the dominant word in the design is *service*. Railway—Gas—Electric—*service*. Here are summed up the policies of the company; the aim and inspiration of every man in the organization.

"In introducing this slogan to the public, in making it familiar through the medium of advertising, the company realizes the responsibility it is assuming. To make such a promise to the public and then fail in any particular of living up to its highest conception would be an ignoble defeat. It now rests squarely on the shoulders of every man bearing allegiance to the Monongahela Valley Traction Company standard to see that it is not only kept but surpassed.

"In the railway department it means that safety and courtesy have risen to an even higher importance. The public will be alert to notice to what extent the company's men are imbued with the spirit of the slogan; quick to perceive their attitude toward it either in the breach or the observance.

FROM CUSTOMER TO CLIENT

"In the gas department it means that every employee will further extend himself to make every patron a booster, will further work with the company in doing everything possible toward maintaining irreproachable service. It means that henceforward every person contracting for gas from this company is raised from a customer to a client.

"In the power department it means that the problem of every consumer of power is our problem. Service, expressed concretely in the form of the services of our engineers, in the full cooperation of our organization with the plans of the consumer company, is to be given a new significance.

"Our slogan, carrying with it such obligations, would never have been adopted had we not felt confident that we could deliver the goods.

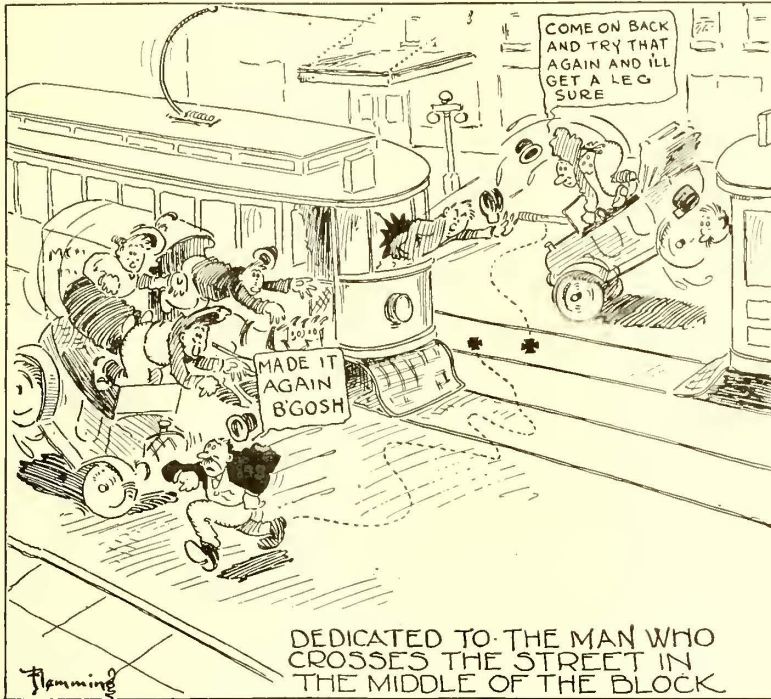
"We've promised something. Now it is for all of us to make it good."

Jay Walker in Cartoon

Well-Known Terror of the Transportation Department Has His Usual Narrow Escape

Jay Walker, the man or woman who crosses the street in the center of the block, has in the past inspired considerable prose and some verse, in addition to much profanity on the part of railway operators. Now the artist has turned his pen on the careless wretch.

The accompanying picture shows how Jay Walker appeared to Flemming, the cartoonist of the Puget Sound Traction Light & Power Company, whose drawings are a feature of *Electrogram*, issued by the company. Jay Walker may escape physical hurt time and again, but unless he is absolutely indifferent to his physical welfare it would seem well-nigh impossible for him not to take to heart the lesson which the cartoon carries.



AN "ELECTROGRIN" IN "ELECTROGRAM"

Census of All Freight Cars

Interstate Commerce Commission Has Issued An Order to All Carriers to Report Their Equipment

The Interstate Commerce Commission, Bureau of Car Service, on Jan. 5 issued an order to all railroads and private car lines as follows:

"The commission desires to determine accurately what freight-loading equipment is actually available for service throughout the country; also that not available for service. To this end you are directed to fill in the information called for by blank space below as of Dec. 31, 1917, and to return this report to the Interstate Commerce Commission, Bureau of Car Service, on or before Jan. 25, 1918.

"Private car lines which have leased cars to other carriers which operate same should show such cars separately, as to individual lessees, as 'cars leased by reporting carrier,' reducing by such number of cars the total number in operation.

"Three copies of this blank are inclosed, one to be returned not later than date mentioned.

"The form, which applies to common box and furniture, ventilated, refrigerator, stock, single and double deck; flat,

drop-bottom, gondola, automobile, solid-bottom gondola, hopper-bottom, tank, and all other freight equipment cars is to be filled out as follows:

Name of carrier.....
Number owned.....
Number leased to reporting carrier.....
Total number in operation.....	
Number in actual service.....	
Number in bad order, divided—	
(a) Not to be repaired.....
(b) Heavy repair cars which will not be repaired within 30 days.....
(c) Heavy repair cars which will be repaired and in service within 30 days.....
(d) Light repair cars.....
Total number bad order cars.....
Total number in operation.....	

"Define carefully the basis which determines whether bad-order cars are classified as heavy or light repair cars."

Agreement on Electrolysis

The City Commission of Trenton, N. J., will sign an agreement with the Trenton & Mercer County Traction Corporation looking toward the elimination of electrolysis from the police and fire cable system throughout the city. The agreement was drawn by E. E. Brownell, who was engaged as arbiter of the dispute.

Rate Case Decided

City the Agent of the State, Which May Change Its Agent, Indiana Supreme Court Holds

The Supreme Court of Indiana on Jan. 11 handed down a decision in the case of the city of Logansport, Ind., versus the Public Service Commission of Indiana and the Logansport Home Telephone Company which is of great importance to all public utilities of the State. Briefly this case was the result of an appeal about a year and a half ago from a case in the Cass Circuit Court, alleging that the Public Service Commission had no authority to increase the rates of the telephone company over those specified in franchise contract with the city, although the company had surrendered its franchise and taken an indeterminate permit.

RATES OF STATE-WIDE INTEREST

The Supreme Court in a lengthy opinion ruled that rates are of statewide interest and not of local interest; that the city in letting a contract, in so far as rates are concerned, acts as the agent of the State and that the State may change its agency and has done so by establishing the Public Service Commission; and that a city and the inhabitants of a city have no rights in a franchise contract fixing rates which cannot be changed or modified by the Public Service Commission which in that respect acts as the representative of all the people. The court further ruled that the powers of the commission are not limited by the provision of Sec. 7 of the Utility Commission Act regarding maximum rates under existing franchises and that this provision simply prevents the company that holds a franchise from increasing rates beyond those fixed in the contract without first obtaining the consent of the commission.

COMPANY WANTS FARE CASE RECONSIDERED

The Indianapolis Traction & Terminal Company as a result of this decision of the Supreme Court appealed to the Public Service Commission on Jan. 15 to reconsider its decision which was upheld by the Circuit Court on Jan. 2 and assume jurisdiction in the petition of the company for a straight 5-cent fare in Indianapolis. The commission states that as the Indianapolis fare matter has been taken to the courts it will wait for a decision of the Supreme Court in that case, but that it will request the Attorney General of the State to assist in having the court reach an early decision.

Chairman Lewis of the commission stated that he believed the Indianapolis and the Logansport cases were not parallel, as the Logansport Home Telephone Company was operating under the general act of the State Legislature while the Indianapolis Traction & Terminal Company was operating under the special act passed in 1899 applying specifically to that company.

The Circuit Court decision in the Indianapolis case was referred to in the *ELECTRIC RAILWAY JOURNAL* of Jan. 5, page 59.

Transportation News Notes

Flat Rate for Rockford Line.—The Public Utilities Commission of Illinois has granted the Rockford & Interurban Railway authority to increase passenger rates to 2 cents a mile straight.

Five-Cent Fare Sought in Lynchburg.—The Lynchburg Traction & Light Company, Lynchburg, Va., has asked the State Corporation Commission to discontinue the sale of six tickets for 25 cents and sixteen school tickets for 50 cents and to establish a straight 5-cent fare.

New Freight Station at Worcester.—The Worcester (Mass.) Consolidated Street Railway has started a freight service from its new freight house on Shrewsbury Street. The Green Street station will continue to be maintained for freight from Boston, Marlboro, Hudson and intermediate places over the lines of the Bay State Street Railway, Boston.

Women Conductors for Long Island Line.—W. W. Lowe, superintendent of the Manhattan & Queens Traction Company, New York, N. Y., has announced that the company will employ young women as conductors on its line running from Long Island City to Jamaica and on an industrial line from Manhattan to the heart of the factory section of Long Island City.

Six-Cent Fare Bill Introduced.—A bill authorizing the Boston (Mass.) Elevated Railway to charge 6-cent fares has been filed in the House by Representative Rowley of Brookline. The bill stipulated that the extra cent shall be paid to the city of Boston in lieu of other taxes, the city to utilize the funds for maintenance of subways, tunnels and other ways along the lines of the company.

Wholesale Jitney Arrests in Houston.—More than forty jitney drivers in Houston, Tex., were arrested by the city police, and the jitney line operating to Camp Logan, the National Guard Cantonment, was put out of business on Jan. 2. The jitney drivers were arrested for not having paid the license fee and obtained license for the new year. They had been notified that new licenses would be required.

Women Guards for Another Line.—C. S. Klumpp, general superintendent of the Hudson & Manhattan Railroad, operating the tubes under the Hudson River between New York and New Jersey, has announced that the company proposes to use women guards. It is not the intention of the company to displace any men now working, but simply to substitute women as it becomes necessary to do so when men leave for military service or other causes.

Fenders Approved.—George B. La Barre, director of public safety of Trenton, N. J., has made an investigation of the fenders in use on the cars of the New Jersey & Pennsylvania Traction Company and the Public Service Railway and reports that he found them to be the proper kind. It had been reported to the City Commission that the fenders were not of the kind approved by the Mayor under an old ordinance.

Fare Hearing Postponed.—The hearing on the petition of George Bullock as receiver for the Buffalo & Lake Erie Traction Company for permission to increase the rate of fare charged passengers on interurban cars of that railroad to 2½ cents per mile has been postponed to a date to be hereafter fixed. The hearing was originally scheduled to be held before the Public Service Commission of the Second District on Jan. 2.

New York Streets More Dangerous.—According to figures given out by the Police Bureau of Statistics of New York City 26,145 persons were injured in the Greater City last year against 24,464 for the year previous. Of the victims, 480 were killed or injured last year as compared with 406 the year before. Electric railway cars were credited with injuring 1940, eighty-four of them fatally, last year, against 1811 injured and seventy-four dead the year before.

Reduction in Owl Service Sanctioned.—Both branches of the City Council of Providence, R. I., on Jan. 8 passed a resolution which, if signed by the Mayor, will practically wipe out all-night car service on the lines of the Rhode Island Company in Providence. It calls for the removal of seventy-seven cars running after 12.30 o'clock in the morning. Cars running from Providence to Pawtucket via Main Street and Pawtucket Avenue will be affected if the measure becomes effective.

Increase in Fare in Oklahoma.—The Oklahoma Corporation Commission has authorized the Shawnee-Tecumseh Traction Company to charge a fare of 15 cents each way between Shawnee and Tecumseh. The fare heretofore has been 25 cents for one round-trip passage. The company showed to the satisfaction of the commission that it could not operate at a profit with a fare of 12½ cents each way. The company has also been authorized to abandon and take up certain portions of its tracks in the outlying districts.

Flat Five-Cent Fare in Salt Lake.—The Public Utilities Commission of Utah handed down a decision recently authorizing the Utah Light & Traction Company, Salt Lake City, Utah, to discontinue on Jan. 1 the sale of 4-cent commutation tickets and to charge a straight 5-cent fare. There will be no change in the conditions governing the issuance of transfers. Provision is made for the redemption of outstanding tickets upon presentation at the office of the company on or before

Feb. 28. Slight modifications were also authorized by the commission in the Sandy-Midvale and the Centerville interurban zone charges.

Fare Increase Authorized.—The Public Service Commission of New Hampshire has granted permission to the Dover, Somersworth & Rochester Street Railway to increase rates for each fare section from 5 cents to 6 cents. A request for the withdrawal of the transfer privilege in the Blackwater section was refused by the commission. The commission, however, has approved a tariff which provides a 9-cent fare for regular passengers, an increase of 4 cents, and a 4½-cent fare in lieu of the present 2½-cent fare for school children.

Loose-Fingered Conductors Sentenced.—Six conductors employed on the Jamestown (N. Y.) Street Railway have been arrested charged with conspiracy to rob the company. When arraigned in court all except one entered pleas of guilty. Three were fined \$50 each and sentenced to the penitentiary for three months. The cases against the other three are still pending. It is charged the conductors exchanged transfers, enabling them to keep the cash fares and register transfers. It is alleged that the men were holding out more than \$25 a week.

Flat Fare in Greensboro.—With the consent of the City Commissioners of Greensboro, N. C., the North Carolina Public Service Company has discontinued the sale of tickets at reduced rates and now charges a flat 5-cent fare for each passenger more than five years old. The company has been selling tickets at the rate of ten for 25 cents for children, eight for 25 cents for college students and others engaged at college, eight for 25 cents for workmen, and six for 25 cents good at all hours. The company will continue to give transfers under the system that has been in use.

Company Loses Owl Fare Case.—The Supreme Court of Pennsylvania in a decision handed down at Philadelphia on Jan. 7, upheld the Superior Court, which recently decided that the Pittsburgh Railways had not given sufficient time before inaugurating a 10-cent night fare. The Superior Court upheld the Public Service Commission in its decision that the company could not increase its fares at night on the ground that it had not given the public proper notice of the proposed change. No opinion was expressed either by the commission or the court in regard to the authorization of an increase in rates.

New Elevated Cars in Use in Brooklyn.—The Brooklyn (N. Y.) Rapid Transit Company has placed fifty new steel 67-ft. passenger cars in service on the Broadway elevated line in Brooklyn for operation between Chambers Street, Manhattan, and Manhattan Junction in Brooklyn. The new cars are longer than the cars in the subway operated by the Interborough Rapid Transit Company. They have three

side entrances, but no end entrances. Cars of the same type which have been in service for some time in the Fourth Avenue subway in Brooklyn have been described in detail in the *ELECTRIC RAILWAY JOURNAL*.

North Kankakee Lines Cleared Snow.—W. H. Baker, president of the village board of Bradley, Ill., writes to this paper under date of Jan. 9: "A heavy fall of snow and sleet struck our village Sunday night and continued until Monday afternoon. The steam roads were greatly behind schedule. But we have to take our hats off to Mr. Windal, manager of the North Kankakee Electric Light & Railway Company, for the good service rendered with a snowplow of C. G. Windal's invention. The tracks were kept open during the storm. Mr. Windal has been with this company for the last eighteen years, and shows he is fully competent to take care of his work under all conditions."

Ordinance to Increase Speed Limits.—As a protection to the railways against damage suits growing out of collisions with vehicles, Supervisor of Public Utilities N. M. Baker of Dallas, Tex., has recommended to the City Commission that an ordinance be enacted limiting electric railway cars to a maximum speed of 15 m.p.h. on the downtown business streets and to a maximum of 25 m.p.h. in the residence district. An old ordinance in Dallas limits cars to a speed of 8 m.p.h. in the business district and 12 m.p.h. in the residence sections of the city, but on account of the absurdity of holding cars to this schedule this ordinance is not enforced. As a result of this ordinance many verdicts in actions for damages against the company have been rendered for the plaintiffs in the courts, where no judgment could be secured under the proposed new ordinance.

Live Stock Haul Increased.—A very large increase in the volume of live-stock hauled to the city by the Louisville & Interurban Railroad has resulted from an extension by the company of a line into the Bourbon stockyards, the livestock market in Louisville. The company began to handle a considerable amount of livestock several years ago when the foot and mouth epidemic was being combated. It was then necessary to unload at the freight station or transfer to wagons 2 miles or more from the stockyards. The line into the stockyards increased the company's facilities and has been appreciated by the shippers. Many of them drive their stock overland to the terminal points of the lines out of the city and there load on the cars. The growers are enabled to rush their stock to the market rapidly and do not chance the losses in condition otherwise possible. Two hours from farm to market is the maximum on any of the company lines. The Louisville & Interurban Railroad is controlled by the Louisville Railway, operating in the city proper. It operates railway lines totalling 100 miles of road.

Personal Mention

D. B. Harcus has resigned from the Chicago, North Shore & Milwaukee Railroad, Chicago, Ill., to become assistant traffic manager of the Mitchell Motor Car Company, Racine, Wis.

John F. Brill, a dispatcher with the Public Service Railway, Newark, N. J., has been appointed supervisor of the Trenton-Newark line of the company to succeed Thomas P. Burke, resigned.

Sidney Withington is acting electrical engineer of the New York, New Haven & Hartford Railroad, New Haven, Conn., succeeding P. J. Kearny, who resigned to enter government service.

William Musgrave, superintendent of transportation of the Omaha & Council Bluffs Street Railway, Omaha, Neb., has been appointed superintendent of buildings and grounds of the company.

Guy E. Tripp, heretofore chairman of the Westinghouse Electric & Manufacturing Company, has been appointed head of the division of production in

Clyde Taylor, who has been acting as president of the Kansas City (Mo.) Railways in the absence of Philip J. Kealy on military duty, has resumed his work as general counsel for the company. Mr. Taylor is also vice-president of the company.

Charles E. Walmer has taken over the work of Henry M. Stine as secretary and treasurer of the Pennsylvania Street Railway Association during the absence of Mr. Stine in the service of the government as captain of Company L, 112th Infantry.

Frank P. Hudson has been appointed superintendent of transportation of the Omaha & Council Bluffs Street Railway. Mr. Hudson has been connected with the company since 1892. He was formerly division superintendent in charge of the lines of the company in Council Bluffs.

C. A. Jefts has resigned as assistant superintendent of the Concord, Maynard & Hudson Street Railway, Maynard, Mass. Mr. Jefts has been with the company for four years. Before that he was division superintendent of the Worcester Consolidated Street Railway and of the Warren, Brookfield & Spencer Street Railway at Clinton.

P. J. Kearny resigned recently as electrical engineer of the New York, New Haven & Hartford Railroad, New Haven, Conn., to become connected with the ordnance department at Washington. Mr. Kearny was graduated from the Massachusetts Institute of Technology in 1903. He entered the service of the New York, New Haven & Hartford Railroad in 1906 as assistant to the electrical engineer.

H. B. Sewall, who has long been connected with Stone & Webster properties in the Central West and in the South and Southwest, has been appointed manager of the Whatcom County division of the Puget Sound Traction, Light & Power Company, with offices at Bellingham, Wash. He succeeds Leslie R. Coffin, who, as noted in the *ELECTRIC RAILWAY JOURNAL* for Nov. 24, was ordered to report for duty at Philadelphia.

Thomas P. Burke, who resigned on Jan. 1 as supervisor of the Trenton-Newark line of the Public Service Railway, was tendered a banquet at the Hotel Klein, New Brunswick, N. J., recently, by the members of the Public Service Railway Company Club. One hundred guests were present, including several officials of the railway. Inspector Patrick Creamer, of Perth Amboy, acted as toastmaster. He presented Mr. Burke with a handsome diamond ring on behalf of the employees. Division Superintendent J. J. Gettings and General Superintendent Newton W. Bolen were among those who addressed the diners.



G. E. TRIPP

the ordnance department of the United States Army. He has already entered upon his duties, and the board of directors of the Westinghouse company has given him a leave of absence for the duration of the war.

F. D. Hain, who has been superintendent of construction of the Altoona & Logan Valley Electric Railway, Altoona, Pa., has been elected engineer of the city of Altoona by the new City Commissioners.

Max Thelen was re-elected president of the Railroad Commission of California at the annual meeting of the commission on Jan. 2. This will be President Thelen's fourth term as head of the commission.

L. C. Mims, formerly city dispatcher for the Northern Texas Traction Company at Fort Worth, Tex., has been promoted to the position of assistant to the superintendent of transportation at the central offices of the company.

Charles N. Black of Ford, Bacon & Davis, New York, N. Y., has gone to Washington to become assistant manager of the procurement division of the ordnance department, under Col. Samuel McRoberts, recently of the National City Bank. Mr. Black is a past-president of the American Electric Railway Association, and up to about a year and a half ago was vice-president and general manager of the United Railroads, San Francisco, Cal.

T. J. Day has been appointed general freight agent of the Pacific Electric Railway, Los Angeles, Cal., succeeding to part of the duties performed previously by D. W. Pontius. Mr. Day has been in the service of the Pacific Electric Railway for ten years, and has had twenty-eight years of railroad experience, beginning with the Denver & Rio Grande Railroad. He was formerly assistant in charge of freight operation of the Pacific Electric Railway.

Henry M. Stine, secretary and treasurer of the Pennsylvania Street Railway Association, has been appointed captain of Company L, 112th Infantry, United States Army. He was stationed at Camp Hancock, Augusta, Ga., but has recently been transferred to Camp Wadsworth, S. C. During his absence in the service, his work as secretary and treasurer of the Pennsylvania Street Railway Association has been taken over by Charles E. Walmer.

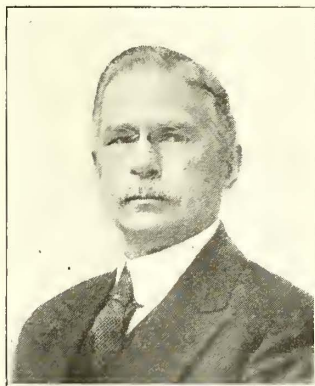
O. A. Smith has been appointed general passenger agent of the Pacific Electric Railway, Los Angeles, Cal., succeeding to part of the duties performed previously by D. W. Pontius, now general manager of the San Diego & Arizona Railroad. Mr. Smith was formerly assistant to Mr. Pontius. He is thirty-two years old. He became connected with the Pacific Electric Railway nine years ago, going to that company from the Missouri, Kansas & Texas Railroad.

Col. Philip J. Kealy, president of the Kansas City (Mo.) Railways, returned to Kansas City from Camp Doniphan on Jan. 5. It is possible that after a few weeks in a hospital he may remain in Kansas City, in active charge of the railway system. Colonel Kealy is and has been active, but his physical condition is such that he may not be able now to pass the necessary physical tests for continuation in the army service. He has been at the head of the 138th Infantry at Camp Doniphan. At a recent meeting of the company's directors Clyde Taylor, acting president, asked permission to resume his work as counsel for the company as soon as President Kealy could return.

O. R. Sturzinger, formerly superintendent of the Northwestern Ohio Railway & Power Company, Toledo, Ohio, has been appointed general manager of the Lakeside & Marblehead Railroad, to succeed A. B. Mack. Mr. Sturzinger entered electric railway work during the construction of the Sandusky, Milan & Norwalk Electric Railway. Later he was made assist-

ant general manager of the company. When that property was included in the system of the Lake Shore Electric Railway Mr. Sturzinger became assistant to the superintendent of motive power. In 1903 he entered the service of the Toledo, Port Clinton & Lakeside Railway. Four years later he was made general superintendent of the company and later superintendent of the Northwestern Ohio Railway & Power Company, the successor.

Thomas F. Mullaney, chief engineer of the Third Avenue Railway, New York, N. Y., since 1907, has resigned from that company and will take a short vacation before making any plans for future work. Mr. Mullaney is one of the pioneers of the electric railway industry and has been actively connected with it since 1888, when he joined the Thomson-Houston Electric Company, Lynn, Mass. He began his engineering career as a machinist, and while so engaged installed, in Lynn, Mass., what was probably the first line



T. F. MULLANEY

of shafting with friction clutches for the driving of dynamos in an industrial plant. This experience brought him in touch with electrical developments and he decided to engage in the new industry. He remained with the Thomson-Houston Electric Company and its successor, the General Electric Company, for the next twenty years, or until 1907, and during this time had charge of the installation of a great many of the first electric railways in this country. Among them was the Lenox Avenue line in New York, the first underground conduit system in that city, and also the Union Railway in Bronx Borough, the first road in New York to be equipped with the overhead trolley. In May, 1907, he accepted the offer of the late F. W. Whitridge, then receiver of the Third Avenue Railway, to become chief engineer of that company. Mr. Mullaney has presented several papers on topics connected with railway operation before engineering organizations.

Samuel E. Smith, who has been superintendent of railways of the Reading Transit & Light Company, Reading, Pa., was made general manager of

railways of the company on Jan. 1. Mr. Smith was born at Womelsdorf, Pa., in 1877. He entered business as a cash boy in a department store in Reading. He next became connected with the dispatching and storehouse departments of the Philadelphia & Reading Railroad. He left railroad work to enter the service of the Holophane Glass Company in New York. About a year later he joined the forces of the Atlantic Refining Company. His next position was with the Monticello Company at Reading and Trenton, dealers in brick. His connection with the Reading Transit & Light Company followed six years later. His first work for the company was as purchasing agent. Subsequently he became claim agent of the company. With the change in control of the railway and light properties at Reading Mr. Smith was made superintendent of railways.

Obituary

Thomas T. Robinson, vice-president and general manager of the Dayton, Covington & Piqua Railway, died at his home in West Milton, Ohio, on Dec. 15. Mr. Robinson has been in charge of this property since it was built and owned the controlling interest in it.

W. I. James, traveling auditor of the Detroit (Mich.) United Lines, died on Jan. 3 while in Redford. Mr. James had been in the employ of the company for eleven years. He began as agent at Orion, Mich., and was steadily advanced until in February, 1916, he was made traveling auditor. Mr. James is survived by his widow and one child.

Joseph S. Baecher, who was formerly secretary and treasurer of the Buffalo (N. Y.) Street Railway, now part of the International Railway, died on Jan. 2 after a short illness. Mr. Baecher became connected with the company in 1868, and continued with it for more than thirty years, occupying various positions until he became secretary and treasurer. He resigned in 1900. He then became secretary and treasurer of the Bell Telephone Company, and held that position until six years ago, when the company was merged in the New York Telephone Company.

George R. Tripp, who was connected with the Boston (Mass.) Elevated Railway for more than forty years, died at his home in Arlington, Mass., on Jan. 7. For eleven years Mr. Tripp was superintendent of surface transportation of the company. He was born in Kennebunk, Me., in 1858. He entered the employ of the railway when he was twenty-two years old. He served successively as conductor, starter, superintendent of the carhouse, purchasing agent, superintendent of the South Boston division, superintendent of the Charleston division, and then as superintendent of surface transportation of the company.

Construction News

Construction News Notes are classified under each heading alphabetically by States. An asterisk (*) indicates a project not previously reported.

Recent Incorporation

***Home Electric Company, Hendersonville, N. C.**—Incorporated to construct and operate interurban railways. Capital stock, \$50,000. Incorporators: Anne Oates, William H. Oates and Claudia H. Oates, all of Hendersonville.

Franchises

Auburn, Wash.—An ordinance has passed its first reading granting the Chicago, Milwaukee & St. Paul Railway a franchise to erect, maintain and operate poles and wires for the electrification of its line within the city limits.

Seattle, Wash.—The Puget Sound Traction, Light & Power Company has applied to the City Council for a franchise across the Ballard Bridge at Fifteenth Avenue, N.W. The application has been referred to the city utilities and franchise committees. That the Ballard Bridge is to figure in a settlement of all differences between the city of Seattle and the Puget Sound Traction, Light & Power Company was indicated at a recent meeting of the city utilities committee, when these Councilmen voted to recommend to the franchise committee that no new franchise be granted to the company until all provisions of present franchise were complied with.

Track and Roadway

Visalia Electric Railroad, Exeter, Cal.—A report from the Visalia Electric Railroad states that its extension of the line from Exeter to Strathmore, 20.9 miles, will be placed in operation this year, and that gas-electric power will be used.

Pacific Electric Railway, Los Angeles, Cal.—Three applications have been filed by the Pacific Electric Railway with the Railroad Commission of California for authority to build tracks across streets in Los Angeles as follows: A third railroad track at grade across Montana Street, Scott Avenue, Berkeley Avenue and Alvarado Street; a turn-out in Sixteenth Street, which will be an extension of the present turn-out in the south half of that street just west of Arlington Street; an additional track at grade across East Eighth Street, East Ninth Street and a portion of Long Beach Avenue.

Municipal Railway, San Francisco, Cal.—A trial run was made on the Twin Peaks Tunnel line of the Municipal Railway on Dec. 31. The line is approximately 3 miles long. It was announced that regular service through the tunnel would begin about Jan. 15, with cars running to Sloat Boulevard and Junipero Serro Boulevard. As soon as arrangements with the United Railroads are completed, service will be provided on Ocean Avenue and to the beach. The company reports that its Market Street extension from Van Ness to Kearny will be opened about May 1.

Des Moines (Ia.) City Railway.—The City Council has granted to the Des Moines City Railway an extension of one year in which to complete the construction work provided for in the franchise which was voted the company three years ago. The company has plans made for sixty-four blocks of construction work during 1918 and expects to complete the work if able to secure labor.

Washington, Baltimore & Annapolis Electric Railroad, Baltimore, Md.—This company is installing two blocks of automatic signals, one at Shipleys and the other at Ardmore, Md. The material is furnished by the Union Switch & Signal Company, Swissvale, Pa.

Kansas City, Mo.—The Boards of Public Works has rejected bids for the construction of the Twenty-third Street viaduct from a connection with the east end of the Kansas Avenue bridge across West Bottoms to and connecting with the west line of New Brook Street at the intersection of Twenty-third Street. New bids are invited. The plans call for two approaches, one from Wyoming Street and the other from Frisco Yards, all of reinforced concrete and steel and main viaduct 1726 ft. long, with sidewalk, roadway and separate space for double street car tracks.

Manhattan & Queens Traction Corporation, New York, N. Y.—The transit committee of the Queens Chamber of Commerce has taken up with the Manhattan & Queens Traction Corporation the suggestion of Borough President Connolly that its trolley line be extended into the Ridgewood section of the borough in order to give that territory better means of transit communication with other parts of the borough. A trip of inspection was recently made to study the condition of the streets and the present residential and industrial developments along the proposed route. The officials of the Manhattan & Queens Traction Corporation have agreed to give immediate consideration to this proposed line.

Sand Springs (Okla.) Railroad.—Announcement has been made by the Sand Springs Railroad that it will not build the line from Tulsa to Pawhuska,

projected more than a year ago. It had been announced that work on this line would begin soon. The reason assigned for not going ahead with construction is that the Sand Spring Railroad is included in the lines now under government control, it being recognized both as a steam and electric railway.

Union Railway, Tulsa, Okla.—The Union Railway, which is building an interurban electric railway between Tulsa and Sapulpa, announces that the line will probably be completed and cars in operation by Feb. 1.

Shops and Buildings

Tuscaloosa Railway & Utilities Company, Tuscaloosa, Ala.—A new carhouse 44 ft. x 167 ft. and an engine room, 60 ft. x 95 ft., is being built by the Tuscaloosa Railway & Utilities Company.

Illinois Traction System, Peoria, Ill.—The carhouse and repair shops of the Illinois Traction System were partly destroyed by fire recently, the loss being about \$35,000.

Kansas City, Mo.—The Upper House of the Common Council has passed over the Mayor's veto, the ordinance previously passed by the Lower House, granting permission to the Interurban Central Station Company, Kansas City, to build a union passenger terminal station at Tenth and McGee Streets. The structure will be 208 x 132 ft., six stories, the construction to permit of the erection of four additional stories. The site and building will cost about \$2,000,000.

Texas Electric Railway, Dallas, Tex.—The Texas Electric Railway, the consolidated Strickland lines, has announced that it will soon begin erection of a large passenger station in Waxahachie. Two lots have been purchased as a site for the depot and for terminal tracks.

Power Houses and Substations

Fort Smith Light & Traction Company, Fort Smith, Ark.—This company reports that it is now installing one 3000-kw. two-phase, 2300-volt Parsons horizontal turbine and two 600-hp. B. & W. boilers in addition to its previous equipment.

Georgia Railway & Power Company, Atlanta, Ga.—A report from the Georgia Railway & Power Company states that it contemplates completing its Tullulah Falls power station by November, 1918, by installing one 12,000-kw. G.E. generator, driven by an 18,000-hp. Smith water turbine.

Northern Illinois Light & Traction Company, Ottawa, Ill.—It is reported that extensive improvements are to be made in the Marseilles plant of the Northern Illinois Light & Traction Company.

Manufactures and the Markets

DISCUSSIONS OF MARKET AND TRADE CONDITIONS

FOR THE MANUFACTURER, SALESMAN AND PURCHASING AGENT

ROLLING STOCK PURCHASES • MARKET QUOTATIONS • BUSINESS ANNOUNCEMENTS

Why Purchasing Agents Are Not Buying Equipment

Financial and Natural Conditions Difficult to Overcome—Still Optimistic for the Future

Perhaps it is too early to say just what, if any, benefits have accrued to shippers and consignees from "Freight Moving Week," just closing. The unprecedented snowstorms in the Middle West, the disastrous effects of which have seriously interfered with the clearing up of the freight congestion, was an unexpected handicap. Some progress, evidently, was made, though the railway purchasing agents are pessimistically inclined regarding deliveries of equipment and track maintenance when the need is most pressing.

Buying on the part of the traction roads still remains at a low level. The disposition to reduce the essential purchases still further is recognized on all sides. The purchasing agent of one of the leading roads controlling and operating a number of important electric lines, in reviewing the situation for the *ELECTRIC RAILWAY JOURNAL*, stated that if the companies were in market for such cars or equipment as their usual requirements under ordinary conditions they would be unable to have their orders filled or shipments made on a guaranteed dating. He said no matter what one would like to get, and which is sometimes imperative to have, it would be so far behind in the delivery as to about nullify its usefulness.

Turbines and transformers are almost impossible to obtain, the agent added, especially if of special design and construction. Locomotives—whether steam or electric; cars—passenger, freight or trailers, and pretty nearly everything that could be enumerated in the railway accessory list, were all under foreign requisition. Therefore, car builders, manufacturers and sales agencies of supplies, etc., apparently are in no position to meet demands of any magnitude. Consequently equipment, rolling stock and track requirements are being closely guarded and used to the limit of endurance. The most serious drawback in domestic business is the uncertainty of shipments. Even such an item as time switches, a minor necessity, perhaps, declared the purchasing agent, is six months behind on delivery. The delays on essentials that absolutely control the operation of electric lines may be more easily imagined than described.

An engineer connected with a system of traction roads in various parts

of the country took the other side of the question. He maintained that the difficulty of renewing equipment, rolling stock, making extensions and desirable developments, was due entirely to lack of funds. The engineer said he did not advance this as a new proposition, as so many electric railway companies had and are yet making every effort to gain permission from the state authorities or public service commissions to raise rates. A few had been successful in their contention, namely, that a very much curtailed income interfered seriously with the proper maintenance of the properties at their fullest efficiency and greatest safety.

Securities of the traction roads were not marketable, unless at a disadvantage, just now, argued the engineer. He believed the government would eventually be obliged to follow the example of Great Britain and appoint a special branch of the war board to pass upon and indorse with its approval securities that could be negotiated without interfering with or antagonizing the sale of the national bond issues. The government is now utilizing about all of the investment money in the country, he contended, and to go out and attempt to sell railway issues now is little short of folly. The public is giving freely of its means for the great war loans, and the floating of any kind of certificate for the purpose of raising funds to keep public utilities in effective condition is not regarded favorably either in official or private financial circles. It conflicts with the overshadowing purpose before the whole country.

In England the sale of any securities, other than government bonds or securities, not having an official indorsement is illegal. So it should be here, continued the engineer, who further stated that, in his opinion, some such step will be taken. Public utilities must be kept up, consequently were essential to the community. Their maintenance, however, required money, the lack of which is being realized by traction roads everywhere. If the government will approve their securities the issues can be sold readily and the necessary capital raised to finance the acquirement of needed rolling stock and other improvements.

Worthington Company Elects President

C. P. Coleman was elected president of the Worthington Pump & Machinery Corporation, New York, N. Y., at a recent meeting of the board of directors.

Observation of Government Metal Prices

Eastern Dealers in Scrap Pledge Not to Deal in Above Standard and to Report Any Violation

At the present time when scrap metal is much more valuable than ever before electric railway managers and purchasing agents will be interested in the following resolution adopted by the Eastern division of the American Board of Scrap Iron Dealers at its meeting in Philadelphia on Jan. 11:

Resolved, That the members of the Eastern division of the American Board of Scrap Iron Dealers pledge themselves that they will neither buy nor sell any scrap iron or steel either by direct transaction or by the use of any subterfuge at a price in excess of that fixed by the government through the committee on steel and steel products of the American Iron and Steel Institute.

It is further resolved that each and every member of this division pledges himself to report promptly to an officer of this division any violation of the price agreement on the part of any one member, or non-member, mill or consumer, who is a party to such violation.

No Change in Railroad Purchasing

Financial Condition of Roads Not to Curtail Orders—Deliveries Likely to Become Large

In answer to the question regarding the method to be followed in railroad purchasing now that the roads are under government control it has been reported from Washington that Director General of Railroads McAdoo will permit the various roads and systems to purchase cars, locomotives, rails, etc., as formerly.

One point is made which is not without significance, namely, that the present financial condition of the roads need not deter them from placing orders. Furthermore, it is stated, car builders will have sufficient steel available to take care of the orders as placed. In this way freight car builders who for some time have been working at about 25 per cent of capacity will be able, provided of course the labor can be had, to greatly increase the output of freight cars.

Already a few of the roads are in the market for additional rolling stock and for rails.

The effect of this upon electric railway properties, unless taken over by the government, is obvious. Deliveries are very poor on many products already

Standardizing on Supplies

Situation in Supply and Demand Causes Manufacturers to Specialize in Certain Types and Sizes

At various times efforts toward standardization of electric railway supplies have received more than usual attention. To-day without any special effort on the part of the traction companies standardization is becoming more and more apparent.

Prevalent conditions of supply and demand have generally brought about this situation in a practical manner. Not that the electric railway purchases have been so heavy, but general buying has been good. A large number of products used by railways are not peculiar to that field. Manufacturers engaged in the production of these items are unusually busy.

In many instances where formerly a considerable stock of many different sizes and types was kept on hand, goods are now being delivered from production. In order, therefore, to hasten manufacture it has become necessary to standardize on a few sizes and types. In this way many items have for the time being been practically discarded. Of course, other sizes and types can in most instances be had, but then only at a sacrifice in delivery and at a higher price.

In addition there is a movement on foot to reduce fuel consumption through the curtailment of special equipment orders.

It is well known that electric railways have in the past bought largely of special equipment. To a certain extent, therefore, it has been necessary to buy special-maintenance equipment.

At this time, however, the purchasing agent has the opportunity to confer with the engineering department with

(Concluded from page 162)

and while traction companies are not buying very much it becomes more evident each day that future requirements must be anticipated earlier than ever.

Car wheels, rails, spikes and other road supplies, bridge materials and freight cars will undoubtedly be in greater demand by the steam roads, and while there is not the likelihood that prices will greatly increase it does seem almost certain that deliveries will be longer.

the aim of minimizing special equipment requirements.

By such action it is evident that stocks on hand can be reduced with the consequent investment saving to the property. With a less varied stock to be maintained it is equally evident that less labor and effort will be involved.

While at the present time standardization has largely been the result of circumstances that could not be altered, it is generally considered as a purely temporary measure. The longer this situation continues, however, the more the utilities will become used to purchasing the standard sizes and types only. For that reason the standardization of many products is now going on that under normal conditions could be accomplished only after a long time spent in discussion.

Ford, Bacon & Davis Incorporated

Ford, Bacon & Davis, engineers, announce the formation of the Ford, Bacon & Davis Corporation, organized for the purpose of conducting a general contracting business, with particular reference to industrial, public utility and power plants, steam and street railroads, docks, steamship and railway terminal facilities, subways, tunnels, hydroelectric and irrigation projects. In effect this means the continuance in corporate form of construction work which heretofore has been handled by the firm direct.

The corporation's organization comprises men skilled and experienced in engineering and contracting work by the most modern and economical methods. It is provided with ample capital to insure the successful completion of any work which it may undertake, and starts business with important work already entrusted to it. Its headquarters are at 115 Broadway, New York, with offices at New Orleans and San Francisco.

The facilities available to the new corporation from the firm of Ford, Bacon & Davis, now in its twenty-fourth year, which continues as heretofore, assure a continuance of this firm's standard of both engineering and construction efficiency and enable both design and construction to be carried on with a degree of co-ordination which should make for economy.

Prices Thought to Be at Peak

The Government's Action in the Matter of Price Fixing Is the Controlling Factor

While a few spasmodic increases in price are surely to be expected during the coming year, all present signs point to lower prices generally at the opening of 1919 than were in force at the opening of the current year. The action of the government in the matter of price fixing is held as the controlling factor.

The government price of 23½ cents for copper is undoubtedly being reflected in the readjustment of copper wire prices now taking place. In the past few months wire base has dropped from 36 to 30 cents and there are no indications that lower levels may not be reached. In fact, certain producers are already quoting lower.

At the same time brass is following the wire market. The government price did not immediately cause the brass price to break any more than it did wire base. As higher price stock, however, was used up and lower-priced material purchased prices were readjusted. Finished brass products have not yet responded to this situation in any noticeable degree.

In iron and steel the government has continued the prices now in effect until March 31, when a further readjustment may take place. In other commodities it has been expected the government may establish standard prices.

The natural result, of course, is to reduce the tendency toward higher prices, for there is no doubt but that in certain instances higher prices were quoted with no other justification than that they could be obtained.

The trade generally, therefore, is of the opinion that prices are now at a peak. Copper wire, which in normal times is considered to be a good market barometer for prices, is still expected to stick to its reputation to a certain degree.

New Service Station for Wagner Company

Wagner Electric Manufacturing Company, St. Louis, Mo., announces the opening of a service station in Seattle, Wash., to take care of service in the State of Washington and the Northwest.

RAILWAY MATERIALS PRICES

	Jan. 9	Jan. 16
Rubber-covered wire base, New York, cents per lb.	30	30
Wire, weatherproof (100 lb. lots), cents per lb., New York	34½-35¼	28¼-34¼
Wire, weatherproof (100 lb. lots), cents per lb., Chicago	38-38.35	33½-38.35
Rails, heavy, Bessemer, Pittsburgh	\$38.00	\$55.00
Rails, heavy, O. H. Pittsburgh, per gross ton	\$40.00	\$57.50
Wire nails, Pittsburgh, per 100 lb.	\$3.50	\$3.50
Railroad spikes, 9/16 in., Pittsburgh, per 100 lb.	\$3.90	\$3.90
Steel bars, Pittsburgh, per 100 lb.	\$5.00	\$5.00
Sheet iron, black (24 gage), Pittsburgh, per 100 lb.	\$5.80	\$5.80
Sheet iron, galvanized (24 gage), Pittsburgh, per 100 lb.	\$4.85	\$4.85
Galvanized barbed wire, Pittsburgh, cents per lb.	\$4.35	\$4.35
Galvanized wire, ordinary, Pittsburgh, cents per lb.	\$3.95	\$3.95
Cement (carload lots), New York, per bbl.	\$2.22	\$2.22
Cement (carload lots), Chicago, per bbl.	\$2.31	\$2.31
Cement (carload lots), Seattle, per bbl.	\$2.63	\$2.63
Linseed oil (raw, 5 bbl. lots), New York, per gal.	\$1.29	\$1.29
Linseed oil (boiled, 5 bbl. lots), New York, per gal.	\$1.30	\$1.20
White lead (100 lb. keg), New York, cents per gal.	10	10
Turpentine (bbl. lots), New York, cents per gal.	48	48½

NEW YORK METAL MARKET PRICES

	Jan. 9	Jan. 16
Copper, ingot, cents per lb.	23¼	23½
Electrolytic, cents per lb.	23½	23½
Lead, cents per lb.	6½	7
Nickel, cents per lb.	50	50
Spelter, cents per lb.	7.87½	8
Tin, Straits, cents per lb.	85.00	85.00
Aluminum, 98 to 99 per cent, cents per lb.	36	35-37

OLD METAL PRICES—NEW YORK

	Jan. 9	Jan. 16
Heavy copper, cents per lb.	22	22
Light copper, cents per lb.	19½	19½
Red brass, cents per lb.	17½	17½
Yellow brass, cents per lb.	14¼	13½
Lead, heavy, cents per lb.	5¾	5¾
Zinc, cents per lb.	5¼	5¼
Steel car axles, Chicago, per net ton	\$43.42	\$42.42
Old carwheels, Chicago, per gross ton	\$35.00	\$30.00
Steel rails (scrap), Chicago, per gross ton	\$33.00	\$35.00
Steel rails (relaying), Chicago, per gross ton	\$60.00	\$60.00
Machine shop turnings, Chicago, per net ton	\$17.50	\$17.50

Rolling Stock

Tidewater Southern Railway Company, Stockton, Cal., is having constructed at its shops an all-steel gasoline motor car for service between Stockton and Modest. It is expected to be ready Jan. 20. The car will carry forty-four seated passengers. There is a ladies' compartment and a smoker in opposite ends of the car in addition to the main body of the car. It will weigh ten tons when fully equipped, is capable of making a speed of fifty miles an hour with a 90 hp. engine. The total cost is about \$7,000. If successful this type of car will displace the old equipment.

Trade Notes

Meyer Safety Guard Company, Omaha, Neb., has removed its offices to 314 Brown Block.

John D. Stout has been appointed Chicago representative for the Terry Steam Turbine Company, Hartford, Conn. Mr. Stout was formerly assistant engineer of the Terry company, and was recently transferred from the New York office, where he was assistant manager.

American Car & Foundry Company, St. Louis, Mo., on Jan. 2 removed its purchasing and auditing departments to New York, where the main offices are located. About 10% employees of the two departments, with the office records and furniture, went east on a special train.

P. C. Gunion has just been made advertising manager of the industrial bearings division of the Hyatt Roller Bearing Company, Newark, N. J. He has been in the sales department of the Hyatt Company for two years. Previous to his recent appointment he was manager of the Pittsburgh office.

Holden & White, Inc., Chicago, Ill., has received from the Philadelphia (Pa.) Rapid Transit Company the largest order for brake slack adjusters ever recorded. This order is for 4298 Anderson slack adjusters, a complete equipment for all double-truck cars operated by the Philadelphia company. These adjusters are being shipped at present to Philadelphia, and are being installed as rapidly as possible.

Hess Bright Company, Philadelphia, Pa., has closed its retail office at 934 North Broad Street, owing to the enlistment of Rush S. Whiteside, the local manager, and G. L. Jenks, his assistant, in the aviation section of the United States Army. The Ahlberg Bearing Company of Chicago will open a branch house at the same address, and will represent the Hess Bright Company as local distributors for the retail trade.

George S. Thompson, representative in Paris, France, of the Vulcan Steel Products Company, New York, N. Y.,

was recently appointed to the purchasing board of the American Expeditionary Forces in France. Mr. Thompson has been assigned particularly to the handling of steel matters. This board is composed of American civilians living in France, and its duties consist of passing upon all purchases made in Europe by the American army.

L. E. Van Norman, chief of the division of information, Washington, D. C., has compiled a war trade manual for shippers. Since some of the data in the "Rules and Regulations of the War Trade Board," which has been distributed very widely throughout the country, have now been superseded by new rulings and lists, the division of information of the board is preparing a "War Trade Board Manual for Shippers," which will contain only data in force at the time of its publication. Copies may be had by writing.

Thodarson Electric Manufacturing Company, Chicago, Ill., has recently undergone a reorganization in all departments. A. S. Lindstrom is now general manager, A. Johnson is the new sales manager, C. B. Olson is purchasing agent and C. R. Oschgar is production manager. The company has also appointed Mr. Alumbough as central Western representative and Mr. Gibson as Eastern representative. W. I. Otis and the Western Engineering Sales Company continue to represent the Thodarson company on the Pacific Coast.

Milton Rupert was recently elected vice-president and assistant treasurer of the R. D. Nuttall Company of Pittsburgh, Pa., manufacturer of gears, pinions and trolleys. Mr. Rupert has been with the Nuttall Company since March 4, 1893, holding various positions. In 1903 he was appointed head of the general offices, being directly in touch with all office matters and also manufacturing operations. During the latter part of this period Mr. Rupert was assistant to the president and general manager. In his new position Mr. Rupert will have charge of sales and manufacturing activities.

Hale & Kilburn Company, New York, N. Y., is making arrangements to reorganize on a plan submitted by the committee having it in charge. They have agreed on the major terms, and Jan. 16 was settled upon as the last day when stock may be deposited under the agreement. It is proposed to form a new company with \$4,000,000 preferred stock, which will be exchanged for the old preferred on the basis of \$66 2/3 new for each \$100 of old stock. Present common stock owners will have the privilege of exchanging their shares for new common on the basis of \$25 new for \$100 old common. The plan calls for the sale of \$1,000,000 6 per cent serial gold notes, the first lot of \$100,000 maturing July 1, 1922. The notes are to be offered for subscription by stockholders at 95, with a bonus of new common stock equal at par with the principal of the notes. It is proposed to trustee all the new stock for five years.

Chicago Fuse Manufacturing Company, Chicago, Ill., announces that it has purchased the entire renewable-fuse business of the Multi Refillable Fuse Company, makers of the well-known line of multi-refillable fuses. This transaction includes the conveyance of all merchandise, materials, machinery, tools, designs, patents, good will and unfilled orders, and hereafter these fuses will be manufactured and marketed solely by the Chicago Fuse Manufacturing Company under its trade name "Union." The Chicago Fuse Manufacturing Company will still continue with its line of non-refillable fuses, thereby being in a position to furnish either type of fuse as desired by the trade.

New Advertising Literature

Manistee Iron Works, Manistee, Mich.: Bulletin No. 53 is descriptive of its single-stage centrifugal pumps.

Walter A. Zelnicker Supply Company, St. Louis, Mo.: Bulletin No. 230 lists and briefly describes various articles, machines, etc., in which it specializes. Copies may be had by writing.

War Trade Board, Washington, D. C.: Is ready to distribute bulletin No. 1, entitled "Trading with the Enemy." The pamphlet includes the full text of the Act of Congress prohibiting American manufacturers and merchants, under penalties, from "trading with the enemy, or ally of enemy, without first obtaining a license from the War Trade Board." Besides notes on the enemy trading list a complete index of the names by countries is also supplied.

Carnegie Steel Company, Pittsburgh, Pa.: In the form of a letter from a retired steel man to a friend, which is embodied in an illustrated pamphlet entitled "My Dear Jim," the Carnegie Steel Company of Pittsburgh, Pa., has printed a description, in non-technical language, of its chief products. Not only is the vast plant's long list of products dealt with in an interesting manner by the writer of this admirable compilation, but the personnel and development of the great business is also touched upon in the same easy-going style. Copies may be had on application.

Merchants' Association, New York, N. Y.: A valuable summary of the readjustments made by English manufacturers on account of the war, as explained in the conferences between American manufacturers and a commission sent to this country by the British Ministry of Munitions. No publicity as to what took place at these conferences, which in this city were held at the headquarters of the Merchants' Association, was permitted until after the British commission had concluded its work. The discussions at the conferences are of great interest and importance to all American manufacturers, whether they are engaged in the production of war material or not.