

The Papers and Reports at the Accountants' Convention

The two papers at the convention were respectively on stationery and the collection and registration of fares. The former, which was presented by Mr. Shurtz, described the result of applying system to a chaotic condition of forms and blanks and reducing the paper stock required to uniform sizes and styles. Mr. Sampson's paper related to interurban operation and indicated that the problem of collection and registration of fares on these long lines is by no means a simple one. Steam railroad practice cannot be adopted from the fact that practically all of the passengers pay their fares on the cars, and as a result the use of duplicate fare receipts prove very cumbersome. The ordinary single register was also tried, both on the zone system and for registering at one time a through fare, but was abandoned in favor of a multiple register, upon which six classes of fares can be recorded. The discussion indicated that at least one company represented at the convention printed its own transfer tickets, this company using about 10,000,000 transfers a month. It might be said in this connection that the Union Traction Company, of Philadelphia, not only prints its own transfer tickets but practically all its own blanks and stationery, annual reports, etc., and has found the practice a very economical one.

The two reports presented at the convention were on standard blanks and accounting for material and supplies and on standard forms of report for electric railways. A few changes in wording were made by the association in the reports as presented, and these changes appear in the reports as they are printed in this issue, so that they represent the form as adopted by the association. Both reports were, however, accepted practically as they were presented, though not without a great deal of debate, particularly in regard to the recommendation to change the standard system of report from that which had been previously adopted. In view of the fact that the first issue of each month of this paper contains our regular department on street railway accounting, it has been considered advisable to postpone the discussion of the revised form of report adopted at Detroit until that issue, when we expect to present several communications on the subject. The report on standard blanks for material and supplies recommended a system which is in practical use on a number of the principal railways of the company and has given very good satisfaction. Several suggestions were made by which the blanks could be reduced slightly in number in case all of the information indicated by them was not considered necessary, and undoubtedly some of the roads, especially some of the smaller roads, will follow this modification.

Excessive Car Service

The necessity of greater economy in operation on city roads with variable traffic is bringing to the front the matter of excessive car service. It will frequently be found that more cars are run at certain hours of the day than are actually necessary to take care of the business offered. This is sometimes done to divert traffic from a competing line, but is done more often to avoid a large proportion of tripper runs on the regular schedules. Wherever there is a pronounced morning and evening rush, with light traffic in the midday and at night, the manager is confronted with the choice of two evils. He must operate unnecessary and unprofitable service during the hours of light traffic or he must (by cutting it out) operate a timetable with a considerable proportion of small pay tripper runs. By doing the one he pleases the public and the employees at the expense of his stockholders, and by doing the other he pleases his stockholders at the expense of the public and the employees. A complicating element of the situation is that the maximum traffic of the evening is usually concentrated into a much shorter space of time than the maximum rush hour morning traffic. The morning concentration may be handled with fifty cars, because the traffic is spread over two hours or more, but the evening concentration may require sixty cars because it

covers not more than 45 minutes to 70 minutes, thus requiring ten trippers with one trip each.

Where the excessive midday and night car service may be depended upon to build up a growing community, the money involved may be considered not merely as a contribution to the men and to the public but also as a present expenditure to secure a future gain to the stockholders. It is nothing less than a tribute to the kindly feeling of the manager and the stockholders toward the employees to say that the unnecessary and unprofitable trips are usually run during hours of light traffic, not because of the hope of future gain, but as a humane concession to the employees. It must be borne in mind, however, that the wages of the car crews are not the only items of cost in operating the unnecessary trips. There are the items of wear and tear on cars, electrical equipment, track, overhead line and, what is of still more consequence, the cost of the additional coal burned at the power house. It is an open question worthy of serious consideration whether it would not be cheaper to keep the unprofitable trips off the road and pay the car crews the wages for a fair day's work. If, now, the tripper men thus cut short of work could be given other employment of a useful character in the car house or shop there need be no question of money loss to the company or a gratuity to the men. Some such solution of the tripper question may be feasible in one place but not in another.

Where small single-truck cars are used there is a partial solution of the problem by getting an equipment of large double-truck cars, thus increasing the maximum carrying capacity without running so many additional trippers. The tendency for many years has been in that direction, but in places where the entire equipment is of large cars the tripper problem still exists. As it is hardly possible to make the large cars much larger (without double-decking them) it is plain that the problem of trippers or excessive car service will continue to vex railway managers for some time to come.

The Wrecking Equipment

Every well equipped electric railway is supposed to provide for the quick handling of all kinds of obstructions by having for each important line or division one or more wrecking cars. They may not often be needed, but when they are required they are wanted badly, and should be ready to start out like a fire engine, on a moment's notice, night or day. But are they? There are some roads that are not up to date in the equipment of their wrecking cars, and certainly not keeping up with their neighbors in the matter of getting the crew together and the car started quickly. A delay of fifteen minutes to a half hour, night or day, when an important line is tied up, and when minutes are running into dollars and cents, or when injured persons are suffering, would seem to be worth looking into. Naturally the first aim of every manager or superintendent is to prevent accidents, and then provision should be made, when they do occur, to clear the road as quickly as possible and care for the injured, if that has not already been done before the wrecker arrives.

To be of the maximum use the wrecking car must be equipped for every possible emergency. This idea is not original but it is sensible. There are many things that may obstruct the track, and it is usually embarrassing to find, after the wrecker reaches the scene of the trouble, that the very appliances needed to remove the obstruction have been left behind or were never a part of the equipment. The wrecking car equipment is often utterly inadequate, and will be found to consist of several fish-plates and flat draw-bars, a quantity of blocking, two or three chains or wire ropes, two or three jacks and a few necessary tools, such as wrenches, shovels, picks, etc.

It is pretty well understood that accidents have a habit of occurring almost anywhere, and frequently where not even the smallest mechanical assistance can be had for love or money. It may be nothing more than a heavy truck loaded with iron, stone or timber that has broken an axle and dropped across the track

at some lonely spot in the suburbs; it may be a collision between a car and such a truck, it may be a collision between two cars, it may be a simple but annoying derailment, or it may be a land or a rock slide or a washout.

Every well-equipped wrecking car should have appliances for removing heavy obstructions, for replacing derailed cars, for tying up and holding in position broken axles, gears or truck frames or motors that have dropped. There should be plenty of axes, sledges, jacks, saws, wrenches, bolts, spikes, shovels, crowbars, chains, ropes, lanterns, torches, light clusters with overhead trolley connection, rubber gloves, insulating pliers and all kinds of line repairers' tools, including a plentiful supply of tackle and falls. There should be all kinds of blocks, and plenty of them for blocking is sometimes exceedingly difficult to get. Every wrecking car should carry on the outside a ladder, a couple of extra trolley poles, and at least two wide, heavy, push poles, to be used for placing against the forward bumper, and pushing wagons or other obstructions from the track. Last, but not least, every wrecking car should carry a case containing all necessary articles for rendering first aid to the injured, and some one of the crew should understand how to use the articles. The crew should be trained so that they will assemble on signal and get started within one minute to three minutes, either in the day or night time. If there is ever an occasion when time is money it is when a heavy passenger line is blocked, and there are perhaps dozens of cars and hundreds of passengers waiting and the number multiplying every minute. Under such conditions the wrecking car becomes an important part of the equipment.

Steam Roads and Electric Competition

The probability that steam railroad men may be called upon at any time to adapt electric traction to the conduct of their suburban passenger traffic and to the working of their light branch lines makes it important that they follow closely the course of the development of electric operation. The electric motor is destined to find one of its widest applications in work of this kind. For elevated and for underground roads it is destined to drive the steam locomotive out of business. Unless the steam roads serving populous suburban communities are forehanded in maintaining a more frequent and cheaper suburban service they will probably encourage electric competition, in which the experience at St. Paul and Minneapolis may be repeated. It will be remembered that several years ago the passenger traffic between these two cities was handled entirely by two steam railroads. Each road gave an hourly service, making the actual interval thirty minutes, and the running time from terminal to terminal was about twenty-five minutes. The single fare was 30 cents, the round-trip fare 50 cents, and the commuter's rate 15 cents each way, the distance being about 10 miles. The electric road, when it commenced operation, made the fare 10 cents each way, and ran cars over the distance in about fifty minutes, on a headway of six to ten minutes. The electric cars ran through the streets of both cities, and gave transfers to connecting lines. Considering the time lost by going to and from the depots of the steam roads as against the convenience of taking a through electric car at any corner on the principal streets of the business district, it would appear that there was not much, if any, time gained by using the steam road service. The result, which was foreshadowed, very soon occurred. The electric road took the bulk of the business and the steam roads reduced their train service.

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The building of interurban roads to connect the small towns with one another and with the large centers of population has just begun. These roads are to be developed into carriers of bulky freight, farm and dairy products, light express matter, baggage and United States mail as well as of passenger traffic. Their ultimate function is to become the feeders, the collectors and distributors of traffic for the trunk line steam railroads, in addition to their legitimate function of handling the strictly local business. The question of the relation that is to grow up between

the electric and the steam roads is a most interesting one, and it is bound to engage the attention of all classes of railroad men in the near future.

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The demand for electric interurban roads as mediums of local communication is becoming almost universal. In former times the pioneers in the new portions of the country found no highways of travel or commerce except the trail or bridle path. One of the first evidences of civilization was the construction of wagon roads. The commercial and social conditions of a community then, as now, depended upon the extent and quality of its highways of communication. A pious old farmer, looking at things philosophically, once remarked that it was a striking illustration of the wisdom of divine Providence that the one place where He had usually created the best roads was through prosperous and highly civilized communities, where they were most badly needed. We may laugh at the old farmer's philosophy, but since the dawn of history it has been true that cheaper and improved means of inter-communication between communities determined their social and commercial welfare. When the means of inter-communication are poor the pleasures of life and the duties of citizenship and society are imperfectly done, then the prompt and steady movements of the products of the soil and of manufactures are retarded. The interurban electric roads are destined to make possible as great an advance in the commercial and social prosperity of the communities they serve as did the first wagon roads that replaced the trail and the bridle path.

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Without going deeply into the matter at this time it may be suggestive to call attention to the fact that with a few hours of rain or snow the country highways often become quite impassable. This may occur at a time when the farmer or the country merchant wishes to travel or to market his products or to draw his supplies from the city or the station of the steam railroad. Such conditions have been known to continue for many days, sometimes for weeks, resulting in a perceptible interruption in the steady flow of traffic even on the steam roads. Such fluctuations of traffic are annoying and expensive not only to the communities themselves but to the railroads. Cars are detained beyond a reasonable time in loading and unloading. Locomotives and terminal facilities are comparatively idle awaiting the uncertainties of the weather. The markets are often deprived of that for which there may be a strong demand. With the advent of the interurban electric road into the freight business this condition will be changed, and traffic will flow in an uninterrupted stream because no ordinary storm can stop it. The steam railroads will find that instead of being overcrowded one-half of the year, with little to do the other half, the movement will be more continuous from the farms to the markets and vice versa. It is not improbable that the time will soon come when the electric and the steam roads will make physical connections at many common points, and that the electric roads may accept and haul the freight cars of the steam roads into the suburban and interurban districts.

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The question which interests the steam railroad officials more deeply than any other in connection with electric traction is the possibility of operating many of their branch lines where traffic is light by electricity, also of operating their frequent suburban short-haul train service by electric power. It is no secret that the New York Central and the Pennsylvania Railroads have already developed their plans for operating some portion of their through train service and all of their suburban train service in and out of New York city by electricity. The trains of both of these roads will reach the heart of the city underground through tunnels. Electric operation through the tunnels is not a question of economy but a question of necessity. These developments, being the first attempted upon a large scale by any of the steam roads, will be watched with much concern. They will furnish an example from which other roads can work out their own problems on a strictly economical basis.

Union Interurban Passenger Station at Toledo.

In a number of cities where there are several interurban roads plans are being made, or have been perfected, for a combined union passenger and freight station from which all interurban cars will radiate. In two or three instances these stations are to be

make their purchases at the nearest stores. All interurban cars now traverse the loop made by Superior, Jefferson, Summit and Cherry Streets. Each car stops in front of the interurban station long enough to load and unload passengers. It is the duty of each conductor upon arriving at the station to announce his car and the towns on his road.

All the interurban lines of which Toledo is the center use this union passenger station. These include the Lake Shore Electric Railway, Toledo & Western Railway, Toledo & Monroe Railway, Toledo & Maumee Valley Railway, and the Toledo & Bowling Green Railway. Some idea of the magnitude of the operations of these roads may be gained from the fact that when the last link in the Lake Shore Electric Railway is completed this winter, direct communication may be had by trolley between Cleveland and Detroit or Adrian, Mich., and that a fast service is contemplated over the entire system. The importance of this system for Toledo will be readily appreciated, as all the interurban lines touch many small towns and bring these places into convenient time-distance for shopping.

The station at Toledo is a large room with seats for a couple of hundred people. A view of the waiting room is presented herewith, together with an exterior view. It is open night and day, and is in charge of a manager, who has two assistants. Tickets, both single trip and round trip, are sold over all the roads. All expenses are divided equally among the five roads using the station, settlements being made each month. A counter at one side of the room is leased to a newsdealer, who also dispenses soda water and other soft drinks. An additional source of income, as well as one which is of great convenience to patrons, is the check room, where packages may be left or delivered. On payment of 5 cents the passenger is furnished a check for a box, and in making purchases throughout the city he may have goods

sent to this box, to be called for when he leaves the city. The station is in the best part of the retail district, convenient to the leading hotels, and on the whole it is proving eminently satis-



UNION STATION FOR INTERURBAN ROADS ENTERING TOLEDO

fine structures, comparing favorably with steam union stations. Examples of this kind have been presented from time to time in these pages, and the details of less pretentious undertakings have also been published. There has been no recognized standard for this work; in fact, there has been a wide difference of opinion as to the best plan for handling this class of business.

In Toledo the interurban companies decided, after canvassing the situation, to separate rather than combine the two facilities; to locate the union passenger station in the retail shopping district and the freight station in the jobbing and manufacturing section. It was believed that the combining of the two would work inconvenience for both classes of patrons, as passengers do not like the delays, noise, dust and confusion consequent upon the loading and unloading of freight. Moreover, it was hardly possible to find a location which would be convenient for both.

Both the passenger and freight stations in Toledo are in a sense makeshifts, neither having been designed for the work which they now satisfactorily perform, and this fact makes them especially interesting, as indicating that it is not absolutely necessary to go to the expense of building special stations at this stage. The union freight station was described in the STREET RAILWAY JOURNAL of Oct. 4, and the method of handling business adopted by the roads using this depot was carefully considered.

The union passenger station, which is equally interesting, was established at its present location, near the corner of Superior Street and Adams Street, not long ago, through the concerted efforts of enterprising merchants in that district, who, hearing that a station was about to be selected, leased the large store room in the newly-completed Smith & Baker Building, and offered it rent free for a short period to the interurban companies. The results obtained have demonstrated the wisdom of this move on the part of the merchants, since several thousand passengers arrive and depart from the station every day, and naturally many of them



WAITING ROOM OF INTERURBAN UNION PASSENGER STATION AT TOLEDO

factory to the merchants and the public as well as the railway companies.

The Brockport (N. Y.), Niagara & Rochester Railway Company, Brockport, N. Y., was incorporated Oct. 22, with a capital of \$500,000, to construct an electric road 44 miles long from Rochester to Medina. The new concern has a capital of \$500,000. The directors are Frederick Beck, Brockport; W. S. Shields, Waterville; S. J. Spencer, Buffalo.

Rochester Railway Employees' Club Rooms

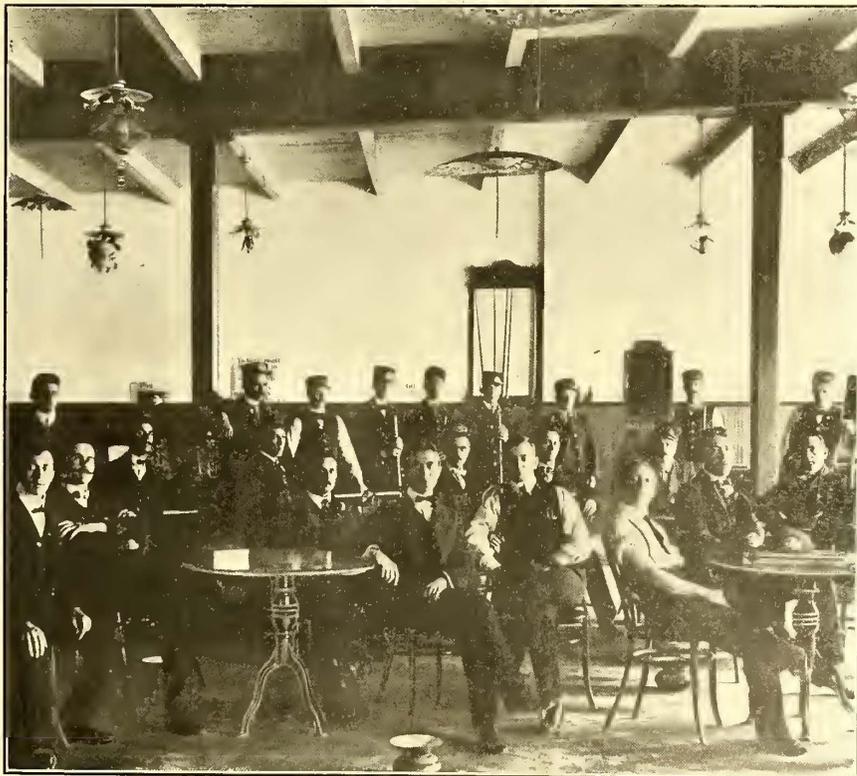
The problem of providing suitable assembly rooms for the employees of electric railways and securing attractions which will command the attention of the men while they are not on duty, has received a great deal of attention throughout the country and has been worked out satisfactorily along different lines in several cities. In New York, Chicago and other large cities where the number of men has warranted the management in forming benefit organizations, the insurance feature has proved



MEETING ROOMS ABOVE CAR SHEDS

an important factor, but in the smaller cities this has not been practicable, and the companies have relied upon the educational and social advantages to attract employees.

In Rochester, N. Y., the local company has found the co-operation of the Young Men's Christian Association of great value, and the management has encouraged the formation of a street railway branch, much after the plan of the railroad branches, which are to be found throughout the country. Thus far the work among

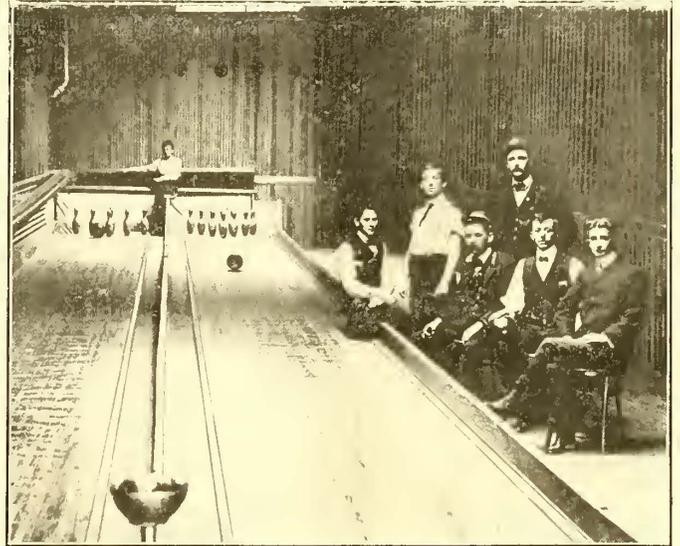


CORNER IN THE GAME ROOM

the street railway men has been highly gratifying to the company and the men as well as the association, and each month has shown a growing interest in the new undertaking.

During the summer the company fitted up rooms for the men in the car house on State Street. This building is of historic interest, as it was for many years the headquarters of the Rochester City & Brighton Railroad Company. It has been entirely overhauled, and the part assigned the men for their assembly rooms is fitted up and furnished very comfortably. An exterior view of the building is presented herewith, together with pictures of the bowl-

ing alley and a corner of the game room. In the latter there are two pool tables, a ping-pong table and ten small tables for chess and checkers. There is also a reading room, which is well lighted and provided with suitable reading matter, bath rooms, finished



VIEW OF THE BOWLING ALLEY

in marble and provided with three hot and cold showers, and the secretary's office. The bowling alley is one of the most popular features of the establishment, and it is expected that interest in this sport will increase during the winter, when match games between the crack rollers will be played. Already the men have shown marked appreciation of the efforts made by the company to provide a comfortable place and congenial recreation for them, and this will be more noticeable, it is believed, during the long winter evenings.

The rooms are under the direct supervision of a secretary, representing the Young Men's Christian Association, and he looks out for the details, thus relieving the management of this responsibility and insuring proper attention to these matters. William C. Montignani, who occupies this position, has had considerable experience in similar work, having been identified with the railroad branch of the Young Men's Christian Association at Montreal. The scope of the work is to be broadened. Classes in electricity are to be formed, as well as in other studies which the men have expressed a desire to take up. Entertainments are to be given from time to time and other forms of amusement added. To do this successfully the management decided that a board of managers should be appointed, to consist of three members of the board of directors of the Young Men's Christian Association and four employees of the road. The latter are selected by the men themselves and the three directors of the association by the board of directors. This action brings the men in co-operation with the city association and gives them a part in the management of the affairs of their rooms.

Very soon one afternoon a week will be set aside for the wives and friends of the employees, at which time the ladies will make full use of the rooms. Another idea suggested is that of forming a bowling club and playing matches with other clubs in the city. It is proposed to arrange for the installation in the rooms of a day and all-night light lunch department. The opening of a barber shop in the

rooms is another feature that has been suggested.

The charges for all games and amusements have been made as low as possible, no profit being made on anything in connection with the institution, and the receipts are all used to support the rooms. The company not only donated the rooms and fitted them up, but it makes up the deficit, if there should be any at the end of the year. The secretary's monthly reports show a steady advance in attendance, and with the coming of winter, it is believed, there will be even greater interest manifested among the men in the enterprise.

blank "G," and added to the receipts from city lines, which gives the amount to be deposited in bank for the day's business from that office. This deposit is made by the local cashier and a

duplicate deposit ticket signed by an officer of the bank forwarded with the reports to the auditor's office.

As before stated, the register statements are forwarded by the inspectors direct to the auditor's office, and while the cashiers are counting the money and making up as much of the daily reports as can be done by them, a clerk in the auditor's office is calculating the value of the day's collections from these register statements, and when the reports arrive from the local cashiers, this clerk takes them and enters the registered value and records the amount over a short. He also verifies the calculations of the local cashier and certifies to the correctness of the deposit tickets.

When the reports are all completed and checked, this clerk makes a report to the passenger department on blank marked Exhibit "H" of the differences in conductors' reports.

The reports are then turned over to another clerk, who makes up the permanent record in a book (a sample sheet of which is marked Exhibit "I") and renders a report to the general manager on blank marked Exhibit "J" and to the directors on blank marked Exhibit "K." The daily earnings from each line are kept tabulated in books prepared for that purpose, so that at the end of the month such portions of the totals as go to make up the monthly report are ready for use.

In addition to the records mentioned, an account is kept with each train on blank marked Exhibit "L." This is made up from the register statements, and the reports of duplex and pass tickets as given on blank "E," which record also

Union Traction Co. of Indiana.
DAILY EARNINGS REPORT.

ANDERSON, IND.,

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Ticket Sales	LINES	No. of Cars	Motor Mileage	Trailer Mileage	Cash Fares	TICKET FARE		Chartered Cars	Express	Total Actual Earnings	Corresponding Day Preceding Year	Increase
						Full	Half					
	ANDERSON (City Lines) North Anderson, Barnstead, S. Meridian, Ohio Avenue, Third Street.											
	MARION (City Lines) Baltimore Street, College, Deport and Cemetery, North Marion, West Marion.											
	MUNCIE (City Lines) Copersville, Industry, Aronside, West Side, Heekin Park, Whitely and Riverside.											
	ELWOOD (City Lines)											
	ALEXANDRIA (City Lines)											
	JOESBORO (City Lines)											
	INTERURBAN LINES Anderson and Marion, Anderson and Elwood, Anderson and Muncie, Anderson and Indianapolis, Muncie and Indianapolis, Marion and Gas City, Express Car											
	CASH RECEIPTS Total Cash Fares, Total Ticket Sales, Total Chartered Cars, Total Express, TOTAL RECEIPTS											

Exhibit "I" (in Book Form)
13 1/2 x 16 1/4
Exhibit "J"

Union Traction Company OF INDIANA	Union Traction Company OF INDIANA	Union Traction Company OF INDIANA
Passenger's Cash Check	Passenger's Cash Check	Passenger's Cash Check
Receipt No. 27198	Receipt No. 27198	Receipt No. 27198
To _____	To _____	To _____
From _____	From _____	From _____
Via _____	Via _____	Via _____
AMOUNT PAID	AMOUNT PAID	AMOUNT PAID
25 30 35 40 45	45 50 55 60 65	70 75 80 85 90
\$1 \$2 \$3 \$4 \$5	\$5 \$6 \$7 \$8 \$9	\$10 \$11 \$12 \$13 \$14

EXHIBITS "I" AND "J" (IN BOOK FORM, 13 1/2 INS. X 16 1/4 INS.)

EXHIBIT "M" (3 INS. X 5 3/4 INS.)

UNION TRACTION COMPANY OF INDIANA
GENERAL OFFICES, ANDERSON, INDIANA.

DAILY EARNINGS REPORT.

CITY LINES	CARB		CASH	TICKETS	EXPRESS	CHARTERED CARS	TOTAL
	MOTOR	TRAIL					
Anderson							
Marion							
Muncie							
Elwood							
Alexandria							
Joesboro							
TOTAL CITY LINES							
INTERURBAN LINES							
Anderson—Marion							
Anderson—Elwood							
Muncie—Indianapolis							
Marion—Gas City							
Express Car							
TOTAL INTERURBAN							
TOTAL EARNINGS							
COMPARATIVE							
COMPARISON			GAIN		LOSS		PER CENT.
Days of Jan. 1st to date days							

NOTE.—Comparisons are made with Corresponding DAY of WEEK in previous year, except in case of LAST DAY of MONTH which is compared with first day of same month in previous year, in order to obtain a monthly comparison. HOLIDAYS are compared with Corresponding HOLIDAY in previous year.

REMARKS:

EXHIBIT "K" (8 1/2 INS. X 10 1/2 INS.)

UNION TRACTION COMPANY OF INDIANA.

Hour	Leaving for										Reverse Passes	Total Earnings	FARE			Total Fares	Total Passengers
	at												Card	Trip (Adv)	Trip		
	5	10	15	20	25	30	35	40	45	50							
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Exhibit "L"

EXHIBIT "L" (9 1/2 INS. X 12 INS.)

contains the number of passengers carried on interurban lines.

The system explained up to this point has been treated as it pertains to interurban lines, with only occasional reference to city lines.

The city cars of this company have also been equipped with the Ohmer register and arranged for the registrations of six classes of fares, to wit: 5-cent, 4 1-6 ticket, half-fare ticket, passes, employees and transfers. As is the case with interurban cars, an impression of the register is taken by the inspector before turning the car over to the conductor, who also takes his impression when he takes the car. The register then compiles without an additional impression being taken until the conductor in charge is relieved, at which time he takes an impression, and the conductor relieving him also takes an impression, using a different number, and so on until the car is turned into the barn, when the final impression is taken by the inspector in charge, and the entire sheet with all impressions for the day's work of that car is removed by the inspector and forwarded to the auditor's office.

The conductors on city lines make up their reports once each day, immediately upon finishing their day's work and deposit same in a safe at the company's office. The report required to be filled out is printed on the back of the envelope in which they deposit their collections (a sample of which is marked Exhibit "D"). This is the only report required from them, the register does the rest.

The method of handling the receipts and reports from city lines by the cashier and auditor is practically the same as that of handling the interurban business, and I think they will be made entirely clear by an examination of the blanks used for that purpose.

I have omitted up to this time any reference to the collection and reporting for such package and baggage business as is handled on our passenger cars. This branch of the business is taken care of by the conductor in charge of the car, except at such prominent points at which the company has an agent.

We use for this business a triplicate check printed upon an ordinary shipping tag (a sample of which is marked Exhibit "M") one portion being attached to the trunk or parcel, the duplicate given to the passenger, and the triplicate turned in to the cashier with the money. There is no registration made for these checks, as we do not wish to confuse them with our passenger business.

These checks are issued by the passenger department and charged to the local superintendent at each station by consecutive numbers, who again charges them to the various conductors by consecutive number, and the auditing department checks up the use of the checks—all three portions being returned through various channels.

In concluding, I wish to say that the systems used by our company have been developed to meet the necessities of our local conditions, and the results obtained are reasonable satisfactory.

Report of the Committee on Standard Blanks and Accounting for Material and Supplies

At the New York meeting of this association, held Oct. 9 to 11, 1901, it was voted that the committee which had presented a report on the above subject be continued until this meeting, when they should again report and together with their report present the forms intended for use.

The committee commenced its labor by having sent to each of the members a circular asking an expression of opinion on the several divisions of last year's report, with the idea of letting the members say what they wanted and preparing a report which should be acceptable to the majority. Four members were kind enough to favor us with their ideas, and we, in preparing this report, have tried to comply with their wishes, that the system should be less complex than the one presented last year. From the discussion at the New York convention, and from what we have learned since, we are of the opinion that most of the larger roads have in operation systems with which they are perfectly satisfied, and that they would not adopt any other system even though it should have the approval of our association, but that some of the smaller roads are not so well provided. In preparing this report, therefore, we have tried to obtain a good accounting with the minimum of labor. With this end in view we recommend that practically all the clerical work, so far as pricing and charging out are concerned, be done in the accounting department, letting the storekeeper deal with quantities in and out only.

We will divide the report under the same general heads as last year, viz.:

- A. PURCHASE.
- B. RECEIPT.

C. DISBURSEMENT.

D. ACCOUNTING.

which we will sub-divide as follows:

A.

PURCHASE

(1) Requisition for Purchase.

The first requirement is a proper requisition for the purchase of material and supplies for stock or for immediate use. It should be made in duplicate, the original for the purchasing department, the duplicate to be retained by the department making the requisition. It should state for what purpose the material is needed, that is, whether for stock or for some specific work. If for stock, should state the quantity on hand as well as quantity needed and a description of the material required. The original should be sent direct to the properly authorized official, who should make such corrections as to quantity to be ordered, as he desires, and after approval, send to the purchasing agent. (Form 1.)

(2) Order from Purchasing Department and Assignment of Lot Numbers by Accounting Department. (See Form 2.)

This should be made in triplicate, but the original only is reproduced. The duplicate instead of having the receipt attached should have a column at the side in which the accountant can enter the lot numbers. The original for the party or company's shop from whom the goods are ordered, the duplicate for party to whom goods are to be consigned, and the triplicate to be retained in the purchasing department. These orders should be consecutively numbered, should bear the requisition number and contain full shipping directions. The original should also show the conditions of purchase, which can be made to fit the specific requirements of each company and should be signed in the name of the company by a properly authorized person. When the purchasing agent has drawn the order he should send the duplicate to the accountant, who will enter same on his lot number record (Form 3), enter the proper numbers in spaces provided for same on the duplicate, fill out as far as number and description of material are concerned, the cards (Forms 4 and 5) and the sheet (Form 6). He should then forward the duplicate and Forms 4 and 5 to the department for whom goods were ordered, retaining Form 6 in his own department. If the order is on the company's shop, the original should also be sent to the accountant, who should enter the number assigned same on it, to enable the shop department to make its charges against this number. All labor and material used by the shop in filling these orders should be charged to some designated account and a report made of same on Form 7, when work is completed, to the accountant, who should extend prices of material and make a total of the cost and advise the purchasing agent, at the same time crediting the account which had been charged temporarily with the labor and debiting stores account or the proper expense account if made for immediate use. The purchasing agent should advise the accountant of all payments to be made by the company that should be deducted from the face of the bill as well as those payments which add to the cost.

(3) Record of Bills Approved by Purchasing Department. (Form 8.)

This department should be required to keep a record of all bills approved by it. It should be in such form that a total of all bills approved will be shown, and can be made in sheets so that one can be sent to the accountant and a copy kept, or in book form, which can be sent to the accountant as soon as the entries for the month are closed. The accounting department should check the charges to material and supplies on the voucher record by this record.

B.

RECEIPTS

(1) Recording and Reporting.

Upon receipt of a consignment of material at stores, the receiving clerk should check same by the duplicate order (Form 2). When goods are received at a branch store room where it is not convenient to have these on file, the person in charge should be provided with suitable blanks on which to enter the materials received and report to the storekeeper. Consignors should, so far as possible, be required to make a bill for each order and send same to the purchasing department as soon as filled. If, however, a part of the order remains unfilled at the end of the month, a bill should be sent for such material as they have delivered, in order that the accountant may have the necessary data to complete his record. The storekeeper should make a report each day to the accountant on Form 9, sending the original and retaining the duplicate as his record of material received. Upon receipt of the bills by the purchasing department they should be checked by

Form 1 ORIGINAL.

RAILWAY CO. Regulation for Material and supplies No. _____

Purchasing Agent: Please furnish the following for the _____ Department within _____ days.

On Hand, or Due on Previous Requisition	Lot No. or Quantity on Hand	Quantity required	DESCRIPTION OF ARTICLES	FOR WHAT PURPOSE REQUIRED.	Purch. Agent's Order No.

ORIGINAL TO BE REPRODUCED DUPLICATES TO REMAIN IN BOOK

Approved _____ General Managers _____ Head of Department _____

Date _____ 190__ Date _____ 190__

Form 2

Binding space if sheets are used instead of cards

Stored at _____ Lot No. _____

Description _____ Maximum _____

From _____ Minimum _____

Dates _____ 190__ _____ 190__ _____ 190__ _____ 190__

Rec'd Q. _____ Q. _____ Q. _____ Q. _____

Dates Sent Out	Man'ist No.	Quantity	Dates Sent Out	Man'ist No.	Quantity	Dates Sent Out	Man'ist No.	Quantity

Form 3

Binding space if sheets are used instead of cards

Stored at _____ Lot No. _____

Description _____ Unit Cost _____

From _____ Bill No. _____ Amt. _____

Freight Charges as per Bill No. _____ Amt. _____

Charges for hauling and handling _____ Amt. _____

Rec'd _____ Total _____

Dates Sent Out	Man'ist No.	Quantity	Dates Sent Out	Man'ist No.	Quantity	Dates Sent Out	Man'ist No.	Quantity

Form 1-A ORIGINAL.

Note our Order No. on your Bill.

Chicago.

PLEASE FURNISH THE _____ Railway Company

with the following articles and send bill for each consignment direct to the PURCHASING DEPARTMENT same day shipment is made.

For Wanted

Department

Purchasing Agent.

READ NOTICE ON BACK BEFORE FILLING ORDER.

Immediately upon receipt of Order fill out Blank and mail to _____ Railway Co., Purchasing Department.

RECEIPT of your Order No. _____ is hereby acknowledged and is accepted subject to all conditions printed on the back.

Shipment will commence _____ 190__ via _____ State _____ Co.

and will be completed _____ 190__

Dated _____ 190__

Form 4 Lot No. _____ Description of Material _____

Form 5 _____ Department Letter _____ Lot Nos. _____ to _____

RAILWAY CO LOT NUMBER RECORD.

Lot Nos.	Unit Cost	Distribution of Cost		Date	Order Nos.	DESCRIPTION OF MATERIAL.	FROM	Bill or Cost Sheet Nos.	Received Report Nos.	REMARKS
		Labor	Mat'l							

Form 6 RAILWAY CO. Sheet No. _____

REPORT OF BILLS APPROVED BY PURCHASING DEPARTMENT

Bill No. _____ Price O. K. _____

Deduct _____

Charge Ac _____

Deduct from Bill No. _____

Favor of _____

Pay on or before _____

P. A. _____ 190__

Storekeeper's Advice No. _____ Date _____

Clerk _____

Bill No.	Date	BOUGHT OF	Order No.	Total Amount	DISCOUNT		Deductions, Freight, etc.	Net Amount	Charge to Stores Acct.	CHARGE TO OTHER ACCOUNTS		Date Sent to Auditor
					Rate	Amount				Account	Amount	

Form 7 RAILWAY CO. Cost Sheet No. _____

ACCOUNTANT: The following is a detailed statement of the cost of _____ made for _____ Department on Purchasing Agent's Order No. _____

Charge was made against Account _____ Signed _____

Form 8 RAILWAY CO. Sheet No. _____

DAILY REPORT OF STOREKEEPER AT _____

ACCOUNTANT: The following material was received _____ 190__, and added to stores

Signed _____

Dates	Hours	Rate per Hour	Amount	MATERIAL USED			These spaces will be filled in by Accountant	
				Lot No.	Quantity	Description	Price	Amount

Order No.	Lot No.	Quantity	ARTICLES	FROM

Form 10A RAILWAY CO. Dept. Req No. _____

STOREKEEPER at _____ DATE _____ 190__

This department needs the following supplies within _____ days for use at _____

In Charge _____

On hand or due on Req. No.	Additional Quantity Required	DESCRIPTION	Charge to Account	STOREKEEPER'S MEMORANDA		
				No of Req. on Per Agent	sent out on Material No.	Quantity sent

Form 10B RAILWAY CO. No. _____

MANIFEST FOR SUPPLIES ISSUED _____ 190__

FROM _____ STOREROOM TO _____

Requisition No.	Lot No.	Quantity	DESCRIPTION	Charge	Account No.

The above material received in good order except as noted, and charges are approved.

DATE _____ 190__

In Charge _____

Form 11A RAILWAY CO. Dept. Req No. _____

STOREKEEPER at _____ DATE _____ 190__

MEMORANDA OF MATERIAL ORDERED

For use at _____

On hand or due on Req. No.	Additional Quantity Required	DESCRIPTION	Charge to Account	Date Received	Storekeeper's Material No.	Quantity Received

Form 11B RAILWAY CO. No. _____

MEMORANDA OF MATERIAL RETURNED TO STORES OR TRANSFERRED.

FROM _____ TO _____

CHARGE _____

State whether this is New, Second-hand or Scrap Material.

QUANTITY	DESCRIPTION	VALUE	LOT NO.	CREDIT ACCOUNT	AMOUNT

the order and certified as to the correctness of prices and terms. They should then be entered on his record (Form 8), giving them the first open bill number, which number should then be placed on the bills to thereafter identify them. They should then be sent to the accountant who will check them by the storekeeper's daily report of material received and note on bills that goods have been received. He should then fill in the balance of data on Form 6 and, if correct in all particulars, put the bill in line for voucher. A rubber stamp containing information as shown on Form 10, may be applied in the purchasing department to facilitate matters. By the adoption of the above plan all confidential prices are confined to departments of the purchasing agent and accountant. This plan, too, does away with the delay incident to the sending of bills to various departments for their approval. It will perhaps be held by some that general managers will object to approval of vouchers for these bills if they do not find thereon a prior approval by the head of the department ordering the same, but the stamp notation on the bill showing that the goods have been received, giving reference to the advice of same, we think will obviate this difficulty.

(2) Stock Ledger.

We believe that the use of Forms 5 and 6 will entirely obviate the necessity of keeping a regular stock ledger. It is intended that these cards shall be indexed after the following plan:

Lamps, incandescent, lot numbers 26 and 364. This would indicate that two consignments of incandescent lamps had been received and designated by lot numbers 26 and 364. A reference to the cards or sheets arranged numerically, would show the quantity still remaining on these numbers. As soon as all of lot number 26 were used up, this number could be checked, which would indicate that the only incandescent lamps on hand were those under lot number 364. A reference to the card at any date would show the storekeeper, by referring to his Form 5, and the accounting department by referring to Form 6, the quantity on hand.

(3) Handling of Second-hand Material and Scrap.

The plan outlined in our report of last year seemed to meet the approval of the members at New York and is therefore repeated in this report as follows:

If this class of material is entered on the stock books at a value when it is stored for future use or sale, it then comes under the care of the storekeeper, and more importance will attach to it than if it were simply dealt with when sold. Another advantage to be gained by this plan is that the expense or other accounts to be credited with scrap, will receive the credit at the same time they receive a charge for the material which replaces the scrap. Any discrepancy which may occur between the price obtained for the scrap and the value placed upon it, would have to be adjusted proportionately between the accounts credited. When obsolete material is scrapped, stock material account should be credited with the scrap value and the difference charged to proper expense account or to a depreciation account, if one has been provided, or to profit and loss direct. See paragraph B, under "Manifesting," for forms to be used.

C.

DISBURSEMENT

(1) DISTRIBUTION AND CHARGE OF MATERIAL

(a) Regular Requisition.

Regular requisitions should cover the needs of a department for a specified period, being made but once a month if practicable. They should be drawn in duplicate, the original to be submitted to the general manager or some other official of equal authority, for approval before being filled, and the duplicate to be retained by the person drawing the requisition. They should be numbered consecutively. (See Forms 11, A and B.)

(b) Emergency Requisition.

The emergency requisition is designed to provide for material for emergency use, which could not be anticipated or covered by the regular requisition, and should be honored by the storekeeper without the same approval as surrounds the regular requisition, with the understanding, however, that a regular requisition will be drawn later, covering such emergency requisition honored. They should be drawn in duplicate, the original to go to the storekeeper, and the duplicate to be retained by the person drawing the requisition. They should be numbered consecutively.

(c) Request for Material and Supplies.

This form provides for the drawing of material by employees of the shop, track, electrical or other departments, after the request has been signed by the foreman in charge of the employee, and the goods should be delivered to the employee upon presentation of the request. The request is honored by the storekeeper with the understanding that the head of the department making

same will sign a manifest for the material so delivered, or requisition the request later, if so desired by the storekeeper. This form is put up in blocks, is drawn only in original, not numbered, and operates as a sight draft on the storekeeper.

(NOTE.—No blanks are provided for the emergency requisition or request ticket, but forms in use on several roads will be found among the forms filed with the secretary).

(2) MANIFESTING

(a) A regular manifest (Form 12) should accompany each shipment of stock from the storerooms. This should be in triplicate, the original and duplicate going with goods, the original to be receipted and returned to storekeeper, the duplicate to be retained by person receiving the goods, and the triplicate to remain in storekeeper's book. It has been suggested that the labor and expense of manifesting can be avoided by having the requisition (Form 11) made with a receipt attached and sending same back with the goods. When receipted they would be returned to the storekeeper who would in turn send them to the accountant. This plan would obviate checking the manifests, all entries being made from the original requisition, which has been duly approved. Consideration of both plans by the members is desired.

(b) A blank to be used for one or all of the following purposes (Form 13):

To transfer material from one storeroom or department to another.

Second-hand material transferred to storehouse.

Scrap material transferred to storehouse.

Material transferred from storage yards to the place where it is to be used.

This form should be in triplicate. The original to go with the goods and be receipted and returned to sender, the duplicate to be sent to accountant, to be given a lot number and entered on his record and then sent to the department (if a store room) to which same were sent, with the necessary cards.

(c) A blank that may be called "suspense." Being a manifest designed to cover the issuance of material which cannot be intelligently charged out when issued, for instance, the delivery by the store room of material for line repairs which is to be used on emergency or tower wagons. This should be made out by the heads of departments and consecutively numbered and be in duplicate, the original to be retained by person responsible for the material issued upon it, until every article is accounted for on a place provided on the blank, and the duplicate to be retained by the person sending out the material. All material which has been issued upon this manifest which is unused on the last day of the month, must be returned to the storekeeper for inspection; the storekeeper will receipt for it and remanifest it. The person to whom the material is issued shall report upon this blank the use to which the material was put, giving all particulars regarding same. No sample form has been provided, but may be seen among forms on file.

REPORTING

No reports, other than the daily reports of material received and sent out or the receipted requisition for same, will be required from the storekeepers. They should be required, however, to send in the receipted manifests covering all shipments sent out to enable the accountant to check their work.

ACCOUNTING

Suitable blanks or books will be required on which to enter the daily reports received from the storekeepers and distribute same among the various expense accounts, but as these forms must of necessity be of large size and would vary considerably to cover the special accounts each road has, the committee has not felt warranted in going to the expense of getting them out and having them reproduced.

In transmitting this report the committee desires to thank those members who have aided them by their suggestions, and also the Library Bureau, who kindly offered their assistance in getting out such of the forms as their system would apply to and did prepare Form 5 for us.

We trust the members will come to the Detroit convention prepared to thoroughly discuss this report so that some conclusion may be reached at this meeting.

Respectfully submitted,

F. E. SMITH, Chairman,
Auditor Chicago Union Traction Company, Chicago, Ill.
C. L. S. TINGLEY,
Secretary American Railways Company, Philadelphia, Pa.
FRANK R. HENRY,
Auditor St. Louis Transit Company, St. Louis, Mo.

The Stationery Store Room

BY J. R. SHURTZ,

Auditor, South Jersey Gas, Electric & Traction Company, Camden, N. J.

In presenting a paper on "The Stationery Store Room" I shall first endeavor to give you an idea as to the origin of our stationery supplies, which grew to such proportion that it became absolutely necessary to establish a suitable "stationery store room." Three years ago our company consisted of two departments—a gas works and an electric light plant, operating in one city; since that time we have taken in and now operate, under one company, nine gas works, eight electric light plants and a railway of 24 miles. In carrying out the consolidation of these properties I found that each had been run in a very conservative way, receiving, smilingly, whatever business came, without any effort and with practically no care on their part; a total absence of any system of accounting from which monthly reports or details could be gathered; where our policy is to get all that comes our way, reach out for more, and make a big effort to get it. Such little stationery as they had was extremely varied, and was used in many different ways, frequently the most handy; on this account it became necessary to look for a great deal of information from such clerks as we fell heir to from the generosity of the previous owners, as well as making a personal study of a great number of various blanks and forms, which I had gathered from a few of my progressive friends, who had been there before, these, together with such original forms as our experience had prompted us to use, adding here and there a new idea, served as a basis of operation. In the preparation of these blanks my time was of necessity limited. It generally happened that I would receive notice of a plant having been purchased one day and that we were to take it over and operate it the next. Then my troubles would begin, endeavoring to convince the newly acquired old clerks (my heirlooms) that they could do their work differently, and that there were new methods in operating corporations as well as other things.

"Things" I have run up against in the operation of our various departments are numberless as well as varied: Harvesting ice, selling electric fans, connecting gas stoves, with which to roast and cook and at the same time keep peace in the household; endeavoring to see the man who had fallen off a car before he found his doctor (lawyer) to tell him how badly he was hurt; issuing an attachment on the menagerie at the last circus for current consumed in their endeavor to leave the city before banking hours; testing typewriters, who "don't have to work, but will if they like us."

You can readily see that to carry out the detail of such a business and the recording of it that we have a thousand and one different blanks, but as the fad is "to combine," and we work on the community of interest plan, I have eliminated a great number of forms and substituted ones giving as much detail, at the same time covering as many departments as practicable. We have established a standard size for a great number of blanks, which is a great advantage in filing. It quite often happened that we would have a number of forms, measuring about the same size, as, for instance, blanks between 8 ins. and 9 ins., and 11 ins. and 12 ins.; these forms can be readily changed, as follows: First, by ascertaining the size sheets that would cut to the best advantage from paper stock, finding it very easy to cut off a quarter or half inch, or if needs be add the same. I also found it an advantage to use as many different light colors in paper as possible. When one order called for the performance of one kind of work I used a paper with as great a distinction in color for the order blank, reversing the work.

I have also found it a great advantage in paying particular attention to having duplicated orders of stationery, cut the exact size of the previous lot, as a tendency of all printers is to add something or make the forms a little different in size or printing. On account of our business being extended over some 50 square miles of territory, containing some twenty-five different cities and towns, you can imagine the quantity of printer's ink we have thrown at us from all quarters of that territory; but, in order to collect accounts in some instances, and, in other cases, to stand well in the editor's eyes, we have not been able to concentrate our purchases and obtain at all times good work for the best prices; being necessary for these reasons and others well understood, to distribute our work a great deal, this in time can and should be corrected, the business going strictly to the lowest reputable bidder.

Our store room is fitted up with shelves 18 ins. deep around the entire walls of the room, and about 14 ins. apart. This allows us to store most of the blanks in a very nice fashion. It is very satisfactory to have the blanks tied up by the printers in as small packages as practicable, and so delivered; this relieves us of the annoyance of opening packages in the store room unnecessarily, which soil very readily, even with the best of care. In addition to the shelving we had to provide a cabinet of 100 drawers, running

from 1 to 8 ins. in depth, to take care of small blanks, pencils, pens, erasers, etc., a most convenient contrivance.

Once the orders are issued for the stock of "the stationery store room," goods delivered and placed upon the shelves and in the drawers, as described, the issuing of it is readily controlled. In distributing stationery to the several departments, we make the allotments cover a certain period, guided by the wants of each, so that they will run out at about the same time; it is not well to issue large quantities, as it tends to make the clerks wasteful and careless.

In charging up the expense of books, blanks, etc., we charge all stationery first to the store room account, under which we have separate columns for each department, charging to management the general books, reports covering all departments, and blanks in connection with the work of the railway, to their expense accounts; to the gas department, the ledgers which extend over a period of twelve months, and all blanks pertaining to that line of our business, and so on, through all departments.

We are using a number of loose leaf filing cases, similar to a ledger; a style manufactured by a firm in Holyoke, Mass., and find it very convenient to use the same style in a number of departments, and in as many different ways; one in particular being a file 9 ins. x 9 ins., which permits using the same kind of paper for duplicate and triplicate orders, together with copies of correspondence and numerous other items.

Report of Committee on a Standard Form of Report for Electric Railways

BY W. F. HAM, Chairman,

Comptroller Washington Railway & Electric Company; E. M. White, Cashier Hartford Street Railway Company; C. N. Duffy, Secretary Chicago City Railway Company, Chicago, Ill.

To understand correctly the objects sought to be accomplished by this committee, it is necessary to review briefly the circumstances leading to its appointment. As stated in the constitution of this association one of its objects is to promote the adoption of a uniform system of accounts. At its first meeting held in Cleveland, Ohio, March, 1897, a committee was appointed to submit a report on a standard system of street railway accounting. With the work of that committee, known as the standardization committee, you are all familiar, and it is only necessary to say that the classifications reported by them were adopted by this association as standard and are now in general use throughout the country.

We should, however, speak more particularly of the relations existing between this association and the National Association of Railroad Commissioners. The standardization committee had two objects:

First. To devise a standard system of street railway accounting, covering the classification of construction and equipment accounts, classification of operating expense accounts and forms of monthly and annual reports; and

Second. To promote in every way possible the adoption and use of the above classification and forms.

From the first they realized the desirability of working in harmony with such public officials as exercise supervision over the accounts of street railways, with a view to having the classifications of this association approved by them and used in the reports of street railway companies.

Learning that the National Convention of Railroad Commissioners had appointed a committee to prepare a standard system of street railway accounts, the standardization committee put itself in touch with them, and after several conferences, the system prepared by the standardization committee and adopted by this association was approved and recommended for use by the National Convention of Railroad Commissioners held at Denver, Col., August, 1899.

You will understand that this approval by the National Convention of Railroad Commissioners did not necessarily mean its adoption and use in any individual State. To accomplish this result required action by the several State boards of railway commissioners. Up to the present, the only States that prescribe our system are New York and Connecticut, so that much remains to be done by this association and its standardization committee to bring into line the other States that exercise supervision over the accounts of street railway companies.

Our position, however, was much strengthened by the action of the Denver convention and we were invited to send representatives to the Convention of Railroad Commissioners held in Milwaukee in May, 1900, and again to their convention held in San Francisco in June, 1901. At the latter convention, a constitution was adopted in which it was provided that the Street Railway Accountants' Association should be made an honorary member of their associa-

tion and should be represented at each convention by three delegates, thereby giving us formal and permanent recognition.

At the San Francisco convention, the following resolution was adopted:

"Resolved, That a special committee of three be appointed by the chair to prepare a form for reports of electric railroad and that said committee be authorized to act in co-operation with a similar committee to be appointed by the president of the Street Railway Accountants' Association of America, and to invite the assistance of any person possessing expert knowledge of the subject, and that they make report of the result of their proceedings to the next annual convention of this body."

In accordance with the resolution a committee was appointed consisting of Hon. Lavant M. Read, of Vermont; Hon. George W. Bishop, of Massachusetts, and Hon. Ashley W. Cole, of New York. The president of this association was informed of the appointment of the committee and was asked to appoint a committee to confer with them in the preparation of a report. Our committee met a majority of the committee of the Association of Railroad Commissioners in New York in January, 1902, but owing to the severe illness of Judge Read, the chairman of their committee, and the short time intervening before the next convention to be held in Charleston, S. C., in February, their committee decided to allow the matter to go over for another year.

Since the Charleston convention, the president of the National Association of Railroad Commissioners, Hon. Benjamin F. Chadbourne, of Maine, communicated with the president of this association, suggesting that our committee submit a report to our association at the present convention, and that this report be the subject of conference between their committee and our committee, the result of such conference to be reported to their next convention to be held in Portland, Maine, July, 1903.

From the foregoing, you will correctly understand why this committee was appointed and what it hopes to accomplish. As it has been the aim of the standardization committee to secure the adoption of a standard system, so it is the aim of this committee to assist the National Association of Railroad Commissioners in their efforts to secure uniformity in the form of reports by street railway companies to State boards or other bodies exercising supervision over their accounts. It is needless to say that such a result will be of the greatest benefit. To the public, it will be the culmination of our efforts in the direction of standardization of accounts.

The standardization committee confined itself to a classification of construction and equipment accounts, classification of operating expense accounts, and forms of monthly and annual reports.

This committee has gone somewhat further by preparing a comparative balance sheet, with accompanying schedules; a form for description of road and equipment; a form for mileage traffic and miscellaneous statistics; and a form for historical and general information. We have eliminated certain features of the usual report required by railway commissioners, which have been outgrown in the development of the business. We believe the report submitted contains all essential information and gives to the public a complete and intelligible report in a simple and concise form.

This committee suggests no change in the classification of construction and equipment accounts.

In the classification of operating expense accounts, we suggest the following minor changes:

Account No. 19. To read, "Wages of Miscellaneous Car Service Employees." Instead of "Wages of Other Car Service Employees."

Account No. 22a. "Hired Equipment." The insertion of this account to cover rental of cars, electric equipment of cars, and other equipment.

Account No. 29. To read "Stores Expenses," instead of "Store-room Expenses."

Account No. 35. To read "Miscellaneous Legal Expenses," instead of "Other Legal Expenses."

In the form of income account, we suggest changes of more importance.

Gross earnings from operation are separated into two divisions:

First. Car earnings, to include all earning derived from the operation of cars, and

Second. Miscellaneous earnings, to include all earnings resulting from the operation of the property not included in car earnings.

Income from Advertising, rent of land and buildings, and rent of tracks and terminals, previously included under "Income from Other Sources," are now treated as "Miscellaneous Earnings."

A new account, "Income from Rent of Equipment," is also treated as "Miscellaneous Earnings."

Sale of Power, previously classified as "Miscellaneous Income from Other Sources" is now treated as "Miscellaneous Earnings." Under the former classification, the amount shown as "Miscellaneous Income from Other Sources" was the net amount after the

cost of the production of the power sold had been deducted. In the present report, the gross amount received from the sale of power is shown as miscellaneous earnings, and the cost of the production of this power is included in operating expenses.

With regard to "Rent of Land and Buildings" exception is made of income from rent of real estate purchased or conducted as an outside investment, and with regard to "Rent of Tracks and Terminals," exception is made of income from leased lines or terminals, the operation of which has been temporarily or permanently abandoned by the lessor.

Your committee has not made the changes in transferring the accounts from "Income from Other Sources" to "Miscellaneous Earnings" without a careful consideration of the advantages and disadvantages of so doing. They realize the undesirability of making changes in the forms adopted by this association as standard and would not recommend changes of consequence were they not fully convinced that the former arrangement was illogical and improper from a correct accounting and common sense standpoint.

The gross earnings from the operation of a railroad property as surely include income from advertising in its cars, rents from tracks, terminals, land, buildings and equipment, and income from sale of power as the earnings from passengers, freight, mail, etc.

The definition of earnings is "money or other compensation to which one has a claim for services rendered." Surely a service is rendered when we allow others to use the space in our cars for advertising privileges, to operate their cars over our tracks, to use our land, buildings, cars or other equipment, to utilize our power for lighting, heating or other purposes. If these things are not earnings, nothing can be classed as earnings. That they are different from the earnings derived from the operation of the cars, we admit, and have for that reason made two divisions of earnings as above stated, namely, car earnings and miscellaneous earnings.

Another reason why these items should be treated as earnings from operation is that the expense of maintenance of track, terminals, buildings and equipment is naturally included in operating expenses, and if excluded, the total cost of operation is not shown. This is also true of receipts from sale of power, where in addition, the actual cost of the production of the power sold cannot be determined with any degree of accuracy.

The reason for excluding from earnings from operation the rents received from property purchased or conducted as an outside investment is manifest, as we are dealing with the operation of a railroad property. Likewise, the reason for excluding from earnings the income from leased lines or terminals, the operation of which has been temporarily or permanently abandoned by the lessor is apparent, as we are dealing with earnings from operation and that which is not operated can certainly yield no earnings from operation.

The title "Miscellaneous Income" has been substituted for "Income from Other Sources."

The title "Income from Securities Owned" has been substituted for "Interest and Dividends on Securities Owned."

The title "Gross Income less Operating Expenses" has been substituted for the title "Gross Income."

Here a word of explanation seems desirable. Your committee feel that the title "Gross Income," as used in our previous report, and now in general use in street railway and steam railway accounting is radically wrong. Turn, if you will, to Webster's dictionary and you will find the word "gross" defined, "Undiminished by deduction, entire;" yet in common use, as applied to street and steam railway accounting, gross income means "Gross Earnings from Operation and other Sources with Operating Expenses Deducted." This is a manifestly improper use of the word "gross," and we have therefore in our present report used the term "Gross Income less Operating Expenses," as being the correct title in place of "Gross Income."

Taxes we have shown in four separate divisions:

1. On real and personal property.
2. On capital stock.
3. On earnings.
4. Miscellaneous.

The title "Rent of Leased Lines and Terminals" has been substituted for "Rentals of Leased Lines."

As the first deduction from net income we have placed "Reserves and Special Charges" which takes the place of "Additions and Betterments" and "Sinking Funds" in the old form.

At the foot of the income statement we have placed a statement of profit and loss adjustments during the year, which are to include all items affecting profit and loss which have not passed through the income account. In this way a complete exhibit is made for the year.

We ask your careful consideration and open criticism of the forms that follow.

FORM OF REPORT FOR ELECTRIC RAILWAYS

To include:

1. Income account for the year, with accompanying schedules.
 - a. Gross earnings from operation.
 - b. Operating expenses.
 - c. Detailed statement of rentals of leased lines and terminals.
2. Comparative general balance sheet, with accompanying schedules.
 - d. Construction and equipment.
 - e. Construction and equipment, leased lines.
 - f. Capital Stock and funded debt.
3. Description of road and equipment.
4. Mileage, traffic and miscellaneous statistics.
5. Historical and general information.

REMARKS

Gross Earnings from Operation—Divided into
 First. Car Earnings, to include all earnings derived from the operation of cars.

Second. Miscellaneous Earnings, to include all earnings resulting from the operation of the property, not included in car earnings.

Car Earnings.—Divided into earnings from passengers (whether cash or ticket), chartered cars, freight, mail, express and other car earnings.

As an illustration of a proper charge to the last-named account might be mentioned the fixed compensation received for the transportation of letter carriers in uniform.

Miscellaneous Earnings:

Advertising.—If a company conducts the business of selling or renting advertising space in its cars instead of leasing this privilege to others, the amount shown as "Income from Advertising" should be the net income from this source after deducting all expenses of conducting the business.

Rent of Land and Buildings.—This refers to real estate that is being used for the operation of the property, and should show the gross rent without deduction of any expenses.

Income from rent of real estate, purchased or conducted as an outside investment, in which might properly be included office buildings used in part for railway purposes, should be included in "Miscellaneous Income," after deducting all taxes, insurance, water rents or rates, cost of repairs and other expenses connected with such real estate.

Rent for Tracks and Terminals.—To include all compensation received for the use of tracks, terminals and bridges, the operation of which has not been abandoned by the lessor, on whatever basis such compensation may be determined. It may be a fixed sum per annum or a fluctuating rental based upon the number of car miles run, passengers carried, etc.

The word "terminals" is not meant to refer to depots, car houses or other buildings at the termini of the road.

Income from leased lines or terminals, the operation of which has been temporarily or permanently abandoned by the lessor, should be included in "Miscellaneous Income."

Rent of Equipment.—To include all rent received for cars and other equipment, on whatever basis such rent may be determined.

Sale of Power.—To include all receipts from the sale of power, whether for heating, lighting or motive purposes.

If the company conducts a lighting as well as a railway business, this account should not include receipts from the lighting business, but the net income resulting from the lighting business should be included in "Miscellaneous Income." The same principle applies to any other outside business conducted by the company, including operation of parks, park resorts and similar property.

Other Miscellaneous Earnings.—To include all other miscellaneous earnings not specified above.

Miscellaneous Income:

Interests on Deposits.—To include interest on current or special funds on deposit.

Income from Securities Owned.—To include income from stocks, bonds or other securities owned.

Rent of Leased Lines and Terminals.—To include income from leased lines or terminals, the operation of which has been temporarily or permanently abandoned by the lessor.

Other Miscellaneous Income.—To include all miscellaneous income not specified above.

Income from rent of real estate purchased or conducted as an outside investment, in which may properly be included office buildings used in part for railway purposes, should appear in "Miscellaneous Income" and the amount shown should be the net amount received after deducting all taxes, insurance, water rents or rates, cost of repairs and other expenses connected with such real estate.

Income from the operation of parks, park resorts or similar property should appear in "Miscellaneous Income" and the amount

shown should be the net amount received after deducting all expenses connected with such operation.

If the company conducts a lighting, as well as a railway business, the net income resulting from the lighting business should appear under "Miscellaneous Income." The same applies to any other outside business conducted by the company.

Deductions from Income:

Taxes.—To include all taxes on real estate and personal property, track taxes, franchise taxes, taxes upon capital stock, taxes upon gross earnings, car licenses and other vehicle licenses; excepting, however, taxes on property such as real estate purchased or conducted as an outside investment the net income from which is credited to "Miscellaneous Income."

Rent of Leased Lines and Terminals.—To include rent of leased lines or terminals the operation of which has been temporarily or permanently abandoned by the lessor.

INCOME ACCOUNT FOR YEAR ENDING

Gross earnings from operation (per schedule "A")	.....	\$	.....
Operating expenses (per schedule "B")	.....	\$	.....
Net earnings from operation	.....	\$	.....
Miscellaneous Income:			
Interest on deposits	.....	\$	.....
Income from securities owned	.....	\$	.....
Rent of leased lines and terminals	.....	\$	.....
Other miscellaneous income*	.....	\$	.....
.....	\$
.....	\$
Gross income less operating expenses	.....	\$	.....
Deductions from Income:			
Taxes			
On real and personal property	.....	\$	.....
On capital stock	.....	\$	.....
On earnings	.....	\$	.....
Miscellaneous*	.....	\$	.....
Interest on funded debt	.....	\$	.....
Interest on real estate mortgages	.....	\$	.....
Interest on floating debt	.....	\$	.....
Rent of leased lines and terminals (per Schedule "C")	.....	\$	.....
Other deductions from income*	.....	\$	.....
.....	\$
.....	\$
Net income	.....	\$	.....
Deductions from Net Income:			
Reserves and special charges*	.....	\$	.....
.....	\$
Dividends —% on \$.....			
Preferred stock	.....	\$	.....
Dividends —% on \$.....			
Common stock	.....	\$	.....
.....	\$
Surplus or deficit for year	.....	\$	.....
Surplus or deficit at beginning of year	.....	\$	.....
Profit or Loss Adjustments During Year:*			
Credits.—			
.....	\$
.....	\$
.....	\$
Debits.—			
.....	\$
.....	\$
.....	\$
.....	\$
Surplus or deficit at close of year	.....	\$	.....

*Specifying same.

SCHEDULE "A."—GROSS EARNINGS FROM OPERATION

Car Earnings:			
Passengers	.....	\$	.....
Chartered cars	.....	\$	.....
Freight	.....	\$	.....
Mail	.....	\$	.....
Express	.....	\$	.....
Other car earnings	.....	\$	.....
Miscellaneous Earnings:			
Advertising	.....	\$	.....
Rent of land and buildings	.....	\$	.....
Rent of tracks and terminals	.....	\$	.....
Rent of equipment	.....	\$	.....
Sale of power	.....	\$	.....
Other miscellaneous earnings*	.....	\$	.....
.....	\$
.....	\$
Total	.....	\$	.....

*Specifying same.

DESCRIPTION OF ROAD AND EQUIPMENT TRACK

	Owned	Leased	Operated Under Trackage Rights	Total Operated
*Length of road (first main track).....				
Length of second main track				
Total length of main track				
Length of sidings and turnouts				
Total computed as single track				

Note.—If motive power is other than electric (cable, steam, air or animal) state mileage of each separately.

CARS, ETC.

	With Electric Equipment.	Without Electric Equipment	Total Number
Closed pasenger cars...			
Open passenger cars...			
Combination closed and open passenger cars.			
Total passenger cars . . .			
Freight cars			
Mail cars			
Express cars			
Baggage cars			
Combination cars			
Work cars			
Snow plows.....			
Sweepers			
Miscellaneous			
Total			

Note.—If motive power is other than electric (cable, steam, air or animal) state number of cars of each separately.

*Length to be stated in miles and decimals of a mile carried to three places.

MILEAGE, TRAFFIC AND MISCELLANEOUS STATISTICS

Passenger car mileage	
Freight, mail and express car mileage	
Total car mileage	
Passenger car hours	
Freight, mail and express car hours	
Total car hours	
Fare passengers carried	
Transfer passengers carried	
Total passengers carried	
Average fare, revenue passengers	
Average fare, all passengers (including transfer passengers).....	
Car earnings per car mile	
Miscellaneous earnings per car mile	
Gross earnings per car mile	
Car earnings per car hour	
Miscellaneous earnings per car hour	
Gross earnings per car hour	
Operating expenses per car mile.	
Operating expenses and taxes per car mile.	
Operating expenses per car hour.	
Operating expenses and taxes per car hour.	
Operating expenses per cent of gross earnings.	
Operating expenses and taxes per cent of gross earnings.	
Average number of employees, including officials, during year.	
Aggregate amount of salaries and wages paid.	

SUMMARY OF ACCIDENTS DURING YEAR

	Killed	Injured	Total
Passengers			
Employees			
Others			
Total			

GENERAL INFORMATION

Historical sketch of organization, construction, leasing and consolidation of lines now operated.

Corporate names and address of company.

Names and addresses of officers and directors.

Date of close of fiscal year.

Date of stockholders' annual meeting.

President H. C. Mackay's Address

Our association has established a reputation of which we may feel proud. In its chosen field it has brought order out of chaos by formulating a "Standard Classification of Construction and Operating Accounts" which has met the requirements of the various interests represented from all parts of this great country, and has stood for several years the test of actual practice without the necessity of amendment, demonstrating the careful thought and study which it received.

The association has adopted a "Standard Unit of Comparison" which has furnished the means of making correct comparisons. This unit, the car hour, will continue to be appreciated more and more as its use becomes more general.

The work of our association has been the means of elevating the standard of the science of street railway accounting until it has become recognized as the corner-stone of success. It has brought into more intimate relations the operating and the accounting departments to their mutual advantage.

With the foresight which has characterized the work of this association generally, it has seen the necessity of securing the co-operation of the National Association of Railway Commissioners, as in a number of States the State boards have authority to prescribe the methods of accounting to be used by electric roads. Without their co-operation, it will be readily seen that, at least in these States, the results would have been to nullify the work of our association, and, without going into the details, of which you are aware, we secured by that honorable body the adoption of the classification of construction and operating expenses and forms of report, due credit being given to our association, and acknowledgment made by it of the value of our work. The States of New York and Connecticut have put this in use, and all electric roads in those States now report to their respective commissioners in accordance therewith.

Your attention has heretofore been directed to the efforts that have been made to secure the enactment of legislation that would place electric railways in the same category as steam roads, and I particularly wish to emphasize the fact that too great importance cannot be attached to the policy of continuing our very cordial relations with the association of railway commissioners. This desirability increases in corresponding ratio with the adoption of our system by each additional State.

Our association has been officially represented at the last three conventions of the National Association of Railway Commissioners, as explained by my predecessor, W. F. Ham, in his annual address to this association. We have been honored by being elected as honorary members of the association with privilege of debate on matters of accounting, and accorded a representation of three delegates at all subsequent conventions, thus placing our association on the same footing as the association of American railway accounting officers.

During the last year the president of the National Association of Railway Commissioners further honored us by the appointment of C. N. Duffy as a member of the committee on "Railroad Statistics," to report at the Charleston convention, Feb. 11, 12 and 13, 1902. In view of the foregoing, your president appointed as the rest of our accorded representation, W. F. Ham, of Washington, D. C., and myself.

Our efforts were directed mainly toward securing through individual members the adoption of our classification in States where reports are required, and towards cementing the many friendships heretofore formed, and we are confident that the seed sown will, in the near future, bring forth fruit.

In accordance with a resolution passed at the San Francisco convention of the National Association of Railway Commissioners,

a committee of three was appointed to prepare a standard form of report for electric roads, and to report at the Charleston convention; this committee to confer with a committee of like number to be appointed by our association.

A meeting of this joint committee was held in New York, Jan. 10, 1902, where the matter received consideration, but, owing to the sickness of the chairman of the commissioners' committee and to the limited time before the convention, it was decided that a complete statistical report could not be got out which would reflect credit on the committee, and it was decided to suggest to the convention that the matter go over for another year. I regret that none of the commissioners' committee was present at the convention, no report being submitted, nor action taken in the matter.

Your president is pleased to report, however, that he has received the assurance from B. F. Chadbourne, the president of that association, of his hearty co-operation in this matter and of the reappointment of the same committee, to confer with a like committee from our association, in order to present a report at their next convention, to be held in July, 1903, further assuring me that the report would receive careful consideration by that association. In accordance therewith, W. F. Ham, Elmer M. White and C. N. Duffy were reappointed as the committee who will present to this body the reports of their labor. A meeting of this committee was held at Atlantic City, N. J., May 22, 23 and 24, 1902, when the subject was given the same careful scrutiny that always marks the work of the gentlemen of which this committee is composed, and, doubtless, their efforts will be acceptable to both associations. In this connection, the committee reports that they had the assistance of our Mr. Tingley, of Philadelphia, and Mr. Judson, the accountant of the New York State Board, which is very gratifying, inasmuch as it shows the mutual feeling of interest in this work.

In view of the financial difficulties, receiverships, etc., that have befallen some of the street railway interests during the last few years (which, in my judgment, have occurred by reason of erroneous methods of accounting), it was my first intention to have a paper prepared and presented to this convention on "Correct Accounting Methods for Electric Railways," being a treatise on the broad, underlying principles of accounting, including depreciation, injuries and damages, sinking fund, etc., with the object of instilling into the minds of those who have the guidance or direction of street railway affairs the vital necessity of making adequate provision for depreciation.

To secure an expression of opinion on this subject, a circular letter was mailed to about one hundred of the different street railways of this country, asking whether the subject would be of interest to them. The replies were practically unanimous in favor of it, but one of the replies received stated that, while of great interest, it was, in their opinion, going beyond the jurisdiction of our association to discuss matters of policy, and, as we are but the representatives of the members (the companies being the members), some of us not even being officers of the companies we represent, it might be presumptuous to vote on such questions. Nevertheless, as accountants, we are expected to furnish true accounts and true methods of accounting, which should recognize all the provisions mentioned. In deference to this minority, we have refrained from bringing it before the convention for discussion, but I cannot permit the opportunity to pass without expressing my personal views upon this subject, and without in the slightest depreciating the work of our association, will say that we have devoted a great deal of time to matters pertaining to fine accounting, with scarcely a moment's discussion of one of the very foundation stones of this whole structure.

As an illustration of the manner in which roads have been recapitalized over and over again, by reason of the failure to apply correct accounting methods, it is but necessary to refer to the article read before the last convention by Col. T. S. Williams, vice-president of the Brooklyn Rapid Transit Company, whereby the methods of the Third Avenue Railroad Company were explained.

Before true costs and profits can be shown, there must be created out of operating, or, as a deduction from income, a sum sufficient to equalize all depreciation which has occurred during that period.

Only recently, your president was informed by the general manager of a large system that with them there was no such thing as depreciation; that as far as physical property was concerned, it was repaired or renewed as worn out, and the expense charged to operation.

The fallacy of this line of argument is to my mind so apparent that I need only say that, if the same policy were continued to the expiration of the franchise, and the company obliged to cease operations, there would be a depreciation ranging from practically nothing on the portions that had just been renewed, to almost total value on the portions which were to be renewed within the near future had the company continued to operate.

Not only this, but the method of charging heavy reconstruction charges into operation is destructive of all comparisons. This provision for depreciation must not be considered as covering ordinary maintenance or repairs which must be charged to operating expenses, but applies when the property can no longer with economy be repaired, and must be renewed or replaced. As an illustration, we will assume the life of a track to be fifteen years. A company constructs 5 miles the first year and a corresponding mileage each succeeding year for the next fourteen years. Now, at the beginning of the sixteenth year, with a total track mileage of 75 miles, it becomes necessary to replace the 5 miles built the first year in order to retain the original track. This expense, amounting to one-fifteenth of the total track construction, has no place in a property account, as it is simply a renewal of what has been already charged to the property, but must be included in operation unless provision has been made for a depreciation reserve, as before mentioned. Bear in mind that, for charging against income monthly a sum sufficient to cover this depreciation, you are distributing this expense over the period during which the depreciation is going on. It is necessary that provision be made, not only for such depreciation, but reserve funds must be created to preserve the capital intact from loss, which may at any moment be sustained through serious accidents, etc. There are unsettled suits and claims for damages always hanging over every company which has been in operation for any length of time, and this contingent liability should appear on the books and be anticipated by proper charges against operation, thus creating an injuries and damages reserve fund, and a like provision should be made to cover uninsured fire losses.

Sinking funds should be created to retire outstanding bonds at maturity, and to guarantee the return of original investment to the stockholders, this being particularly applicable to all systems operating under limited franchises.

These funds should not be mere bookkeeping accounts, but should consist of interest-bearing securities held in trust for the particular purpose, and not assignable to any other use.

To my mind, one of the strongest arguments that can be used to refute the statements of agitators for municipal ownership is public accounting and statements of true costs and profits, which would have the effect of strengthening our securities.

Individually, if not as an association, we can and should use our influence in this direction, and I consider we would not be performing our duty, were we, realizing the danger, to permit without protest the continuation of erroneous methods simply on the theory that it involved a question of policy, and that the directors were responsible for that. The directors, without doubt, feel that the head of the accounting department will give them the benefit of his experience and show them the ultimate results of any line of policy affected by accounting methods.

True, in case an organization is being conducted with the desire on the part of the directors of making a flattering showing in order to unload their securities at a handsome profit, the accounting officer offering such a suggestion would have only labor for his pains, but I am optimistic enough to believe that these are exceptions; that the great majority are laboring to secure fair returns upon a permanent investment, and are desirous of having only correct accounting methods used.

We have the same able committee on "Standard Blanks and Accounting for Material and Supplies," which is prepared to submit a report of its deliberations, which we trust will bring out a full and complete discussion, and harmonize the many conflicting ideas relative to this very important branch of our work.

I desire to thank the gentlemen who have so readily responded to my request to prepare and present to this body the various papers and matters for their information, and the members of the various committees who have given their time and study, and to our worthy and efficient secretary, to whom we are indebted for the printed copies of these articles having been placed at our disposal in time for careful study before the convention. I trust this policy will hereafter be readily followed, as it permits of much more complete discussion. The necessity of having copy in hands of the secretary not later than Aug. 15 is respectfully urged upon members contributing papers or reports, in order that the minimum expense and labor be incurred. In accordance with the authority granted by the last executive committee, your president has approved for payment vouchers covering the traveling expenses of members of committees, there being no reason why expenses incurred wholly on account and for the association's benefit should be borne by the individuals, in view of the financial condition of our association.

Your attention is respectfully called to the desirability of hereafter incorporating in the annual report of our convention the "Classification of Accounts and Forms of Annual and Monthly Reports." This can be added to and kept up with very little labor and expense, forms for same being locked up and set aside

by the printer for the use of each succeeding report. The advantage of this is that, by referring to the last report, it will be possible to get the complete and corrected classifications, etc., without the necessity of reading through the several reports to ascertain what action was taken upon any given subject. Any amendments or changes would thus be readily seen by a comparison with the previous report. The necessity of a standard classification of construction and operating accounts covering the lighting business is becoming apparent, by reason of the increasing number of electric railway companies that are absorbing lighting systems. The accounts covering the operation and maintenance of a railway power plant apply with equal force to a lighting plant, and with slight modifications, the general expense accounts are likewise applicable, thus leaving only the cost of distribution to be provided for. These few accounts could be added to our present classification.

The lack of "Standard Classification of Lighting Accounts" was very forcibly brought to mind by the receipt of a letter from T. C. Martin, expert special agent of the electrical division for the twelfth United States census, in which he stated that blanks of inquiry were being prepared for statistical information covering the street railway industry of the United States, and that these blanks were to follow very closely the classification of accounts as prescribed by our association, as far as the railway features are concerned, but, inasmuch as the statistics of the lighting industry were likewise being compiled, it was necessary to have similar detailed statements of earnings, expenses, etc., for that department. It is to be regretted that we were not prepared to submit a classification for their guidance, the importance of which is very manifest.

During the last year the secretary has had printed and distributed to all members the verbatim report of the organization meeting, thus completing the history of this association from its inception to the present meeting. I think we will all appreciate the value of this work, which has been got out with the usual good taste displayed by Mr. Brockway.

It is gratifying to be able to report that our finances are in very good shape, and while we continue to lose some of our old members through consolidations, the interest in the association's welfare has brought in new members, more than enough to offset its losses. Persistent and aggressive solicitation by individual members, as well as by the association officials, is necessary to maintain our average increase in membership. Our secretary has sent circulars, and otherwise made especial efforts to reach the street railways of this country who are not on our membership list, and particularly those who are members of the American Street Railway Association.

We trust the reputation we have established of promptly and systematically threshing out the wheat from the chaff, throwing out the obsolete methods and agreeing upon those which will increase the efficiency of our departments, and, at the same time the usefulness of this association, will be maintained. Let me remind you that we each and all owe to the association and to the companies we represent prompt and faithful attendance at all meetings.

Report of Committee on the Standard System of Street Railway Accounting

BY C. N. DUFFY, W. F. HAM, J. F. CALDERWOOD, H. L. WILSON AND W. G. McDOLE

Your committee on a standard system of street railway accounting beg leave to submit the following report:

We recommend that the classification of construction and equipment accounts remain unchanged, unless the convention directs otherwise.

We recommend the following changes in the classification of operating expense accounts:

Account No. 19, to read "Wages of Miscellaneous Car Service Employees," instead of "Wages of Other Car Service Employees."

Account No. 22a, "Hired Equipment." The insertion of this account to cover rental of cars, electric equipment of cars and other equipment.

Account No. 29, to read "Stores Expenses," instead of "Store Room Expenses."

Account No. 35, to read "Miscellaneous Legal Expenses," instead of "Other Legal Expenses."

A suggestion was made to substitute the title "Supplies Expense" in place of "Store Room Expenses," but was not approved. The titles as recommended were adopted.

Report of W. B. Brockway, Secretary and Treasurer

I beg to present the following as the report of this office for the year just ended:

RECORD OF MEMBERSHIP	
Organization Members	25
1897	12
1898	32
1899	34
1900	21
1901	25
1902	19
Total	168
WITHDRAWN	
1897	1
1898	0
1899	2
1900 (caused principally by consolidations).....	25
1901 " " "	11
1902 " " "	7
Total	46

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NEW COMPANIES	
People's Tramway Company	Putnam, Conn.
Muscatine Electric Railway	Muscatine, Ia.
Providence & Danielson Railway	Providence, R. I.
Richmond Passenger & Power Company	Richmond, Va.
Jacksonville Street Railway Company	Jacksonville, Fla.
Railways & Light Company of America	Baltimore, Md.
Compania Ltd. de Tranvias Electricio de Mexico..	City of Mexico
Citizens' Traction Company	Oil City, Pa.
Natchez Electric Railway, Light & Power Company.	Natchez, Miss.
Cincinnati, Dayton & Toledo Traction Company ...	Hamilton, Ohio
Austin Electric Railway Company.....	Austin, Texas
Springfield & Eastern Railway	Palmer, Mass.
Albany & Hudson Railway & Power Company	Albany, N. Y.
Rhode Island Company	Providence, R. I.
Portland Railroad	Portland, Me.
Springfield & Xenia Traction Company	Springfield, Ohio
Trans-St. Mary's Traction Company	Sault Ste. Marie, Mich.
Jackson Electric Railway, Light & Power Company.	Jackson, Miss.
Newton Street Railway	Newtonville, Mass.

COMPANIES RESIGNED	
Toledo, Bowling Green & Fremont Railway Co...	Toledo, Ohio
Wilmington City Railway Company.	Wilmington, Del.
United Traction Company	Pittsburgh, Pa.
City Electric Railway	Port Huron, Mich.
Norfolk Railway & Light Company	Norfolk, Va.
Bridgeport Traction Company	Bridgeport, Conn.
Southern Traction Company	Pittsburgh, Pa.

FINANCIAL TRANSACTIONS	
Balance on hand, Oct. 1, 1901.....	\$1,583.68
Received, applications	\$380.00
Received, dues for 1902	1,740.00
Dues for 1901	20.00
Interest on deposits	24.22
Total	\$2,164.22
DISBURSEMENTS	
Salary secretary	\$500.00
Committee traveling expenses	374.63
Printing two reports, etc.	710.95
Stenographer 1901 convention	110.00
Expenses 1901 convention	69.37
Expenses secretary's office	273.07
Advance expenses Detroit convention	62.50
Miscellaneous	6.45
Total	\$2,106.97

Cash on hand:	
Home Savings Bank, Toledo, Ohio	\$1,027.08
Van Norden Trust Company, New York.....	613.85
Total	1,640.93
Total	\$3,747.90

In addition to the usual routine work of the year, there has been published and furnished to the members the verbatim report of the meeting held in Cleveland, Ohio, March 23 and 24, 1897, at which this association was organized. As explained in its preface, this was published to supply the demand caused by its not having been printed in a form to correspond with the regular annual report.

During the months of August and September the work of the office has been carried on under great disadvantages, caused by the removal of the secretary from New Orleans to New York.

CORRESPONDENCE

The Screw Brake Lever

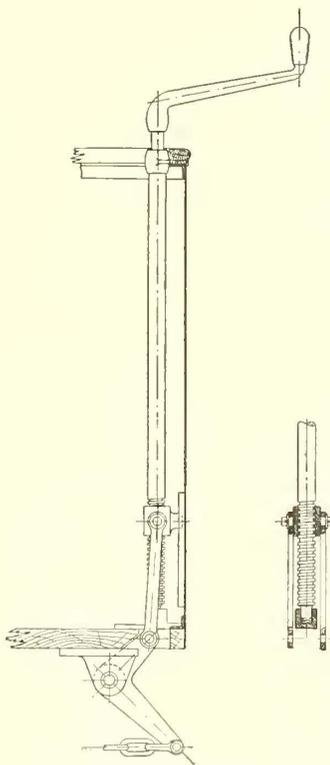
NEW YORK, Oct. 12, 1902.

EDITORS STREET RAILWAY JOURNAL:

Gentlemen:—I notice in the paper on "Street Railway Brakes," read at the meeting of the International Tramways Union, in London, by Mr. Peiser, chief engineer of the Hamburg Street Railway Company, that reference is made to the "screw brake." As this brake is not used in this country I would esteem it a favor if you will give me some information about it.

JOHN WILLIAMS.

[Answer].—The screw brake is used on a few of the European cars, and has also been tried in this country. The principal trouble found with the brake has been, we believe, that it is very slow to apply. The brake staff, as shown in the accompanying illustration, is of the usual type, but the lower part of it is provided with a thread and the lower end itself revolves in a socket. A nut runs upon the thread, and by means of two links and a bell-crank lever the revolution of the staff draws up or releases the brake chain. Of course it is possible to arrange the pitch of the thread so as to get practically any amount of leverage on the brake chain, but a thread with a low pitch, which will give a good leverage, will also give a very slow movement



THE SCREW BRAKE

to the nut, and this has been found to be the principal trouble in practical operation with the brake.—[Eds.]

Railroad Brake-Shoes

Boston, Sept. 28, 1902.

EDITORS STREET RAILWAY JOURNAL:

The recent street railway accident at Pittsfield commands the attention of the whole country, because the life of the President was endangered. In the discussion of this, and of the many accidents which occur on the electric street railways every year, it is often urged in the press that the means used for stopping the cars in an emergency are insufficient, and power brakes are demanded. In this demand the vital point is overlooked. Power brakes and all other kinds of brakes are mechanical devices to wholly or in part force the brake-shoe against the tread of the revolving wheel to retard and stop them by the friction which results. Obviously the material of which the brake-shoe is made and the sort of contact it has upon the polished chilled thread of the car wheel are of the utmost importance.

Brake-shoes made of chilled iron throughout have been used in the West, but the evidence of several serious disasters goes to show that a chilled brake-shoe on a chilled wheel, with both worn smooth and with the most rigid contact, does not produce the friction which a soft iron shoe produces and therefore does not stop the car so quickly. It may wear longer than a softer shoe, but will not do its work so well. Brake-shoes which are three-quarters or one-half chilled are questionable also.

The Master Car Builders' standard is understood to be a soft gray iron shoe, as distinguished from a hard gray iron shoe, for although the latter may give more mileage, i. e., wear longer under equal conditions, the former has been found to give the better results. There are also special shoes made expressly for the purpose of securing better braking results by means of greater friction on the wheel, requiring less power to set the brakes.

Should not this part of the subject be considered and discussed and should not the railroad commissioners cause a thorough and comprehensive test to be made of all the types of brake-shoes used on the street railways and steam railroads of this State?

W. W. WHITCOMB.

Death of Prof. Sidney H. Short

A cablegram from London, dated Oct. 22, announces the death in that city from appendicitis, of Professor Sidney H. Short, technical director of Dick, Kerr & Co.

Professor Short was one of the pioneers of the electric railway business, and until his departure from this country had been prominently and continuously identified with the development of the electric railways of America. He was born in Columbus, Ohio, in 1857, and was graduated from the Ohio State University in 1880. While in college he invented and patented a long-distance telephone transmitter and an improved arc lamp. After graduation he was appointed professor of physics and chemistry in Denver University, and while in that city built, in 1885, his first electric railway, which was a conduit line. In 1887 he returned to Columbus and built a 2½-mile electric railway in that city. He built another line in St. Louis in 1888, and in 1899 removed to Cleveland, where he organized the Short Electric Railway Company, which soon took a prominent place as a manufacturer of electric railway apparatus. After the absorption of this company by the General Electric Company Mr. Short took a short rest, but was soon invited to engage in his chosen field by the Walker Manufacturing Company, which up to that time had been a large manufacturer of cable machinery. The managers of this company decided to engage in the manufacture of electrical apparatus, and selected Professor Short as its vice-president and electrical engineer. Walker motors and generators were soon placed upon the market and achieved a high reputation for excellence of design and construction. While connected with this company Professor Short paid special attention to the problems of heavy electric railroading, and developed an 80-hp motor for electric railway work, which was adopted on the Brooklyn Elevated Railway, and a 150-hp motor, which was put in service on the Metropolitan West Side Elevated Railway, of Chicago. While connected with the Walker Company Mr. Short also developed a pneumatic system of multiple unit control.

In 1898 the control of the Walker Company was secured by one of the other large manufacturing companies, and early in 1899 Professor Short sailed for London, where he accepted the position of technical director of the English Electric Manufacturing Company, a corporation which had recently been organized by British capitalists associated with Dick, Kerr & Co., to build electrical apparatus of all kinds, but particularly for street railway service.

Under the direction of Professor Short very large works were erected by the English Electric Manufacturing Company at Preston, England, and the work of manufacture was immediately commenced. The success of the enterprise was immediate from the start, and orders were received not only from many of the large tramway companies in Great Britain but also from British colonies in the East and from a number of continental countries. Professor Short's record in England as an electrical inventor and manufacturer was equally as successful as that in America, and at the request of a number of scientific bodies he has presented papers before them on various technical subjects connected with the design of electrical apparatus. In spite of his residence abroad he never gave up his American citizenship, and with his wife made several trips to this country, the last one being on the occasion of the convention of the American Street Railway Association in New York in 1901, where he renewed his acquaintance with many of his former friends.

As an inventor Professor Short's record stands extremely high, and has been marked by a remarkable progressiveness, as he has kept in touch with the latest developments in electric railroading, and has made improvements and inventions in advance of the art. Personally, he was an extremely agreeable companion, and had a very wide circle of friends. Professor Short leaves a wife, three sons and one daughter. His eldest son is now taking the engineering course at Cornell University.

Plan to Arbitrate Hudson Valley Strike Fails

The proposition submitted by Addison B. Colvin, president of the Hudson Valley Railway, and agreed to by the company and the striking motormen and conductors on Oct. 20, has suddenly and unexpectedly failed of its peaceful object. The proposition was that the differences existing between the company and the strikers were to be settled by a board of arbitrators, each side to name an arbitrator, and these two to select a third if necessary to avoid a deadlock. The company appointed B. S. Josselyn, general manager of the company, and the strikers selected James

M. Sheehan, of the Albany division of the Amalgamated Association of Street Railway Employees.

At the first session, held at Glens Falls on Oct. 21, Mr. Josselyn held that the company should have the right to reinstate such of its ex-employees as it deemed proper, but Mr. Sheehan, it is alleged, resented this claim, and instead of requesting the selection of a third member of the board of arbitration, withdrew from the board, and thus violated the agreement that had been signed between the company and the men. The unaccountable action on the part of the representative of the men has excited severe criticism.

Substantially the full schedule of cars is being run on the several divisions in Saratoga, Warren and Washington Counties, and cars are now operated at night on some sections of the road. There is a slight increase in traffic, but many are deterred from using the cars by reason of the intimidating acts and general boycott pursued by strike sympathizers.

Topics of the Week

A peculiar case came before a Massachusetts judge a few days ago, when one of the cars of the Brockton & Plymouth Street Railway was held up in Plymouth by a resident, who was owed \$2.50 by the car conductor. The car was held for from five to seven minutes by the defendant's team, which purposely blocked the track until the conductor paid his personal bill. A fine of \$10 was imposed by the judge, with the admonition that private bills must not be collected at the public's expense.

The right of way man for an electric railway that is to extend through a rural district took up residence in one of the small towns through which the road is to pass, and in order to "feel the opinion of the community" became a frequenter of the village store. Of course, the electric railway was discussed by the villagers, and frequent arguments as to the benefits to be derived through the construction of the road resulted. But of all who discussed the line one old fellow, a man who sees the tendency of the times, was always found to be the champion of the electric railway. One day, when the discussion began to warm up, the old man declared, after dwelling at great length on the desirability of granting a location, that he would be willing to give \$1,000 to have the road run near his place, so sure was he of the advantages that would accrue through its operation. Now, the right-of-way man was within earshot, and, convinced that the time to act had come, he in due time gently broached the subject to the old fellow, seeing in the magnanimity of the latter a door that would open to a flood of grants from others. But now the vision of the old fellow, down from his seat on the sugar barrel in the far corner of the store, was quite different, for he demanded \$2,000 for the right to pass his property.

Street Railway Patents

UNITED STATES PATENTS ISSUED OCT. 14, 1902

[This department is conducted by W. A. Rosenbaum, patent attorney, Room No. 1203-7 Nassau-Beekman Building, New York.]

710,941. Street Car Fender; R. A. Boettler, Cleveland, Ohio. App. filed June 21, 1902. A tripping mechanism for changing the elevation of the scoop.

711,022. Trolley for Electric Railways; C. E. Thomas, Springfield, and J. M. Olinger, Vienna Cross Roads, Ohio. App. filed July 21, 1902. The harp is connected with the end of the pole by a latch, so that it can be readily removed therefrom.

711,036. Circuit Closer for Trolley Signals; W. M. Chapman, Newton, Mass. App. filed March 9, 1901. A box-like frame supported above the trolley wire and containing a switch, which is operated by a lever projecting from the box in a position to be struck by the trolley wheel.

711,051. Car-Step; T. Kendrick, Glenwood Springs, Col. App. filed April 21, 1902. Details.

711,084. Car Brake; J. Toner, Pittsburgh, Pa. App. filed March 4, 1902. An emergency brake constructed upon the principal of a chock block.

711,107. Electrical Traction System; W. S. Hill, Hyde Park, Mass. App. filed March 31, 1902. The contact-shoe is pressed into engagement with buttons in the roadway by an electric magnet.

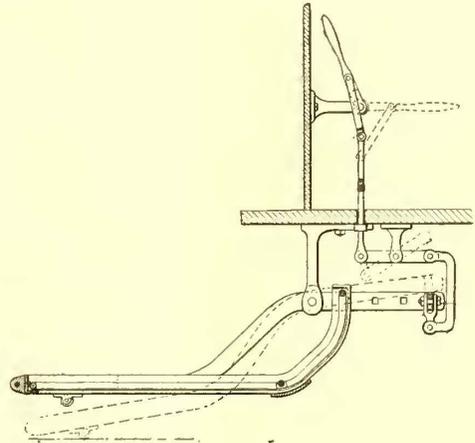
711,208. Car Brake; C. M. Haynes, Toledo, Ohio. App. filed Feb. 13, 1902. A brake-shoe presses against the top of a brake disc mounted in movable bearings, and is thus forced into contact with the rail.

711,280. Brake for Street Railway Cars, etc.; H. T. Brown,

Wilksburg, Pa. App. filed March 28, 1902. A track brake in which the shoe presses against the side of the rail as well as the tread.

711,277. Cement Railroad Tie; W. J. Bell, Newaygo, Mich. App. filed June 21, 1902. A metallic tie embedded in a block of cement.

711,286. Trolley; E. W. Clark, Columbus, Ga. App. filed April 9, 1902. The harp is pivoted to the upper end of the pole and held in place by a latch, which is released when the wheel leaves the



PATENT NO. 710,941.

wire, allowing the harp to swing downward out of operative position.

711,292. Electric Railway or Tramway; G. F. Cornwallis-West, London, England. App. filed May 23, 1902. A devitrified glass paving block, having a cavity therein forming a portion of the conduit.

711,320. Switch; A. E. James, Natchez, Miss. App. filed May 16, 1902. The point is held in one of its positions normally by a spring, so that it automatically assumes that position after being moved by the flange of a wheel.

711,428. Trolley Retriever; A. W. Knuton, Galesburg, Ill. App. filed June 4, 1902. A spring drum and pawl and ratchet arrangement for taking up the slack of the cord and pulling down the pole in case it leaves the wire.

PERSONAL MENTION

MR. STUART A. ALLEN has been appointed traffic manager of the Miami & Erie Canal Transportation Company.

MR. ERNST WEINER, manager of Arthur Koppel, of New York, returned last week from an extensive business trip in Europe.

MR. H. L. BAINES has resigned as superintendent of the Mauch Chunk, Lehighton & Slatington Electric Railway Company, of Mauch Chunk, Pa.

MR. EDWARD WAGENHALLS has resigned as general superintendent of the Millcreek Valley Street Railway Company and Hamilton, Glendale & Cincinnati Traction Company, of Cincinnati, Ohio, to become general manager of the New York & Philadelphia Traction Company, of New Brunswick, N. J.

MR. THOMAS FITZGIBBONS has been appointed superintendent of the Bay Cities Consolidated Railway Company, of Bay City, Mich., to succeed Mr. William Luxton, resigned. Mr. Fitzgibbons has been in the employ of the company a number of years, and is well qualified for the position to which he has just been appointed.

DR. LOUIS DUNCAN, director of the department of electrical engineering at the Massachusetts Institute of Technology, gave an informal lecture before the Society of Arts of the Institute in the engineering laboratory, on Clarendon Street, Boston, on the evening of Oct. 9, his subject being the "Long Distance Operation of Electric Railways." Dr. Duncan spoke entertainingly for an hour on various phases of electric railroading which have been brought to his attention recently, notably the Ganz, Arnold and Westinghouse systems. He devoted most of his time to a discussion of the alternating-current road as built in Europe, with an analysis of their principal operating features, advantages and defects.

FINANCIAL INTELLIGENCE

THE MARKETS

WALL STREET, Oct. 22, 1902.

The Money Market

The money market has developed comparative ease during the past week. Call loan rates have ranged between 4 and 6 per cent, with the bulk of the business transacted at about 5 per cent. The premium on time loans has entirely disappeared, and it is no longer difficult to obtain sufficient accommodation for four to six months at 6 per cent. For the shorter dates, however, 6 per cent is still bid, but this is due more to the indisposition of lenders to place contracts for that length of time, rather than to the scarcity of funds. The banks show more inclination to re-enter the market, but at present a large part of the offerings continue to come from trust companies and institutions other than the clearing-house banks. The banks continue to gain cash from the Sub-Treasury, the total gain since Oct. 17 being close on to \$13,000,000. This was due largely to the redemption of bonds by the Secretary of the Treasury, and it is expected that the total amount to be released by these transactions will amount to about \$23,000,000. In addition to these operations the Treasury Department is anticipating interest on government bonds due on Nov. 1, which will further increase the amount of loanable funds very materially. About the only unfavorable factor in the situation is the increasing strength in the foreign exchange market. Quotations for sterling have risen quite sharply within the past few days, and, according to foreign bankers, rates are now within $\frac{3}{4}$ per cent of the gold export point, with the tendency still upward. There is, however, considerable difference of opinion as to the prospects of gold exports, and the more conservative are inclined to look upon such transactions as a matter for further consideration. It is argued that should an outflow of gold be inaugurated it would immediately result in a decided hardening of money rates here, which would, in turn, be reflected in a decline in exchange to a point when exports of the yellow metal would be out of the question. The local banks have greatly strengthened their position, the reserve on all accounts showing an increase last week of over \$4,080,900. The indications, however, point to a continued firm money market for the balance of the year. Discount rates at the principal European centers continue firm, but the changes from a week ago are not important.

The Stock Market

The liquidation in stocks, which resulted in a severe slump in values on the Stock Exchange, was followed at the close of last week by a resumption of operation by Western speculators for the rise. These operations were accelerated by the final settlement of the coal strike, and by the decision of the Secretary of the Treasury to redeem a round amount of government bonds. The bank statement was unexpectedly good, showing an increase of over \$4,000,000 in the reserves. Prices rose on the publication of this statement, but just before the close there was considerable realizing sales in certain issues, which prevented any important advance in other parts of the list. This selling was continued on Monday by people who had bought at the low level, and who evidently thought such a course prudent. For the remainder of the week the market felt the effects of this selling, and the increasing strength in the foreign exchange market, suggesting gold exports, caused some uneasiness. The banks and more conservative interests have felt that it would be unwise to have active speculation at this time, and endeavored to check any unreasonable bull movement. Speculation became dull, and at the close settled down to a purely traders' market.

There was absolutely no news bearing upon the local traction stocks, and the movements in them were unimportant. In Brooklyn Rapid Transit, an inside pool took occasion to mark up the price a trifle, while Manhattan Railway advanced on buying by insiders. There was also talk of a renewal of negotiations with the New York Central people.

Philadelphia

Such moderate trading as there has been in the traction securities in the Philadelphia market during the week has been confined for the most part to Philadelphia Rapid Transit and Union Traction. The former recovered leisurely from 17 to 18, without any particular efforts being noted to bid up the price. Similarly Union Traction, which sold as low as $46\frac{3}{4}$ a week ago, rallied to $47\frac{3}{8}$. Neither of the movements were significant of any special development in the properties, being merely in harmony with the course of the general market. Nothing but odd lots of American

Railways and Philadelphia Traction have changed hands, the first named between $52\frac{1}{2}$ and $53\frac{1}{4}$, and the latter between $97\frac{7}{8}$ and $98\frac{1}{4}$. Consolidated Traction of New Jersey has been fairly active, at the single price of $69\frac{3}{4}$. On semi-official intimations that a price of 35 a share had actually been offered for the control of Fairmount Park Transportation, the stock rallied 3 points to 27, but only 100 shares were dealt in. Bond sales for the week comprised Electric—People's Traction 4s at $98\frac{1}{4}$ and $98\frac{1}{2}$, Union Traction of Indiana 5s at 101, American Railway 5s at 108, Citizen Passenger of Indianapolis 5s at $110\frac{1}{2}$, Indianapolis Railway 4s at $87\frac{1}{4}$, United Railways 4s at $86\frac{1}{2}$ to 87, and People's Passenger 4s at 105.

Chicago

Transactions in the Chicago tractions have been exceedingly limited, but the tone of the market has been firm during the week. City Railway recovered sharply to 212. Lake Street Elevated, which sold down to $95\frac{3}{8}$ the previous week, rose to $10\frac{3}{8}$, but later lost part of its gain. Metropolitan continued firm at $40\frac{1}{2}$ and $40\frac{3}{4}$, and odd lots of the preferred sold between 89 and 90. Northwestern common rose from 34 to 35, but later reacted a fraction. South Side was strong and fairly active at 110. No sales of Union Traction common were reported, and only one sale of the preferred, at 50. It is announced that the Aurora-Wheaton electric line will have its full equipment of fifty cars in operation by Dec. 1, and will then be prepared to furnish an addition of at least 10,000 passengers daily to the Metropolitan Elevated. The increase in Lake Street earnings since the express service was installed is said to be between 10 and 12 per cent. The company is expending \$75,000 for improvements, which will provide ample power and heat for the winter months.

Other Traction Securities

Massachusetts Electric responded very quickly to the relief in the general market situation, and there were some indications that the speculative interests in the common stock had resumed active operations again. The quotation was advanced rapidly from $35\frac{3}{4}$ to $38\frac{1}{2}$, and held most of the gain. The preferred sympathized only slightly, rising from $94\frac{3}{4}$ to 95. Boston Elevated was stronger, at 156, and sales of the subscription privileges were made freely from 74 to $76\frac{1}{2}$. In Baltimore the week has been a dull one, with a tendency toward recovery. United Railways common rallied from $13\frac{3}{4}$ to $14\frac{1}{4}$, the preferred sold 34, the income bonds went up from $67\frac{3}{8}$ to $68\frac{3}{8}$, and the general 4s sold between $94\frac{5}{8}$ and 95. Nashville Railway stock yielded a fraction from 6 to $5\frac{5}{8}$, but the 5 per cent certificates held comparatively firm at $75\frac{1}{2}$. Bond sales were less than usual, the only ones reported being Knoxville Traction 5s at 101, and Anacostia & Potomac 5s at $97\frac{3}{4}$. The week's sales on the New York curb included American Elevated (1200 shares), between 1 and $\frac{3}{4}$, American Light & Traction at $40\frac{1}{2}$, Camden & Trenton at $43\frac{3}{8}$ and $45\frac{3}{8}$, New Orleans common from 16 to $17\frac{3}{8}$, the preferred at $53\frac{1}{2}$, the $4\frac{1}{2}$ per cent bonds from 82 to 84, Brooklyn Rapid Transit new 4s at $87\frac{5}{8}$, United Railways of St. Louis 4s at $85\frac{5}{8}$, and San Francisco Railways 4s at 91. Last week was one of the quietest on record on the Cleveland Stock Exchange; only about 800 shares of traction stock changed hands. The transactions were all small, coming from small investors who picked up bargains. Prices of nearly all the issues showed slight declines from the week before. Syracuse Rapid Transit sold at $30\frac{1}{2}$, but advanced later to $31\frac{1}{4}$. Two small lots of Eastern Ohio Traction came out at 28, the lowest on record. Two small lots of Lake Shore Electric sold at 18, and a small lot of Aurora, Elgin & Chicago preferred at 94. Monday the situation improved materially, bids being stronger than in two weeks, on Cincinnati, Dayton & Toledo; Western Ohio, Aurora, Elgin & Chicago and Miami Canal. Aurora, Elgin & Chicago receipts brought $37\frac{1}{2}$ and Lake Shore preferred 57.

Iron and Steel

Interest in the iron market at the moment centers chiefly upon the probable effects of the ending of the coal strike upon the industry. Inasmuch as the furnaces which went out of blast on account of the fuel shortage represented only 2 per cent of the country's entire output, the immediate consequences will not be very great. The main good, if it comes, will be through relieving the present pressure upon the soft coal-carrying railroads, and thus allowing the Western furnaces which are now suffering from inability to get sufficient fuel, to have the supply of coke that they need. Good judges of the situation think that the strike settlement means a check upon the imports of foreign iron, and the gradual raising of domestic production to a level somewhere near

that of domestic consumption. Quotations are nominally unchanged at \$21.75 for Bessemer pig, \$31.50 for steel billets and \$28 for steel rails.

Security Quotations

The following table shows the present bid quotations for the leading traction stocks, and the active bonds, as compared with last week.

	Closing Bid	
	Oct. 14	Oct. 21
American Railways Company	52	52½
Aurora, Elgin & Chicago	a39¼	37
Boston Elevated	154	155¾
Brooklyn R. T.	62	63
Chicago City	210	212
Chicago Union Tr. (common)	17	18
Chicago Union Tr. (preferred)	50	50
Cleveland Electric	86	86
Columbus (common)	56	56
Columbus (preferred)	106	106
Consolidated Traction of N. J.	69	69½
Consolidated Traction of N. J. 5s.	110¾	110¾
Detroit United	85	88
Electric People's Traction (Philadelphia) 4s.	98½	98¾
Elgin, Aurora & Southern	—	55
Indianapolis Street Railway 4s	87	87
Lake Shore Electric	a18½	15
Lake Street Elevated	9½	9¾
Manhattan Railway	133½	134¾
Massachusetts Elec. Cos. (common)	35	38
Massachusetts Elec. Cos. (preferred)	a95	95
Metropolitan Elevated, Chicago (common)	40	40¾
Metropolitan Elevated, Chicago	88½	88½
Metropolitan Street	137¾	139½
New Orleans Railways (common)	15½	17
New Orleans Railways (preferred)	53	53½
North American	121	121½
Northern Ohio Traction (common)	64	63¾
Northern Ohio Traction (preferred)	95	92
North Jersey	33¾	33¾
Northwestern Elevated, Chicago (common)	34	34½
Philadelphia Rapid Transit	167½	17¾
Philadelphia Traction	98¼	98
St. Louis Transit (common)	28	—
South Side Elevated (Chicago)	108	110
Syracuse Rapid Transit	30½	a31¾
Syracuse Rapid Transit (preferred)	76	a78¾
Third Avenue	127	127
Toledo Railway & Light	32¼	a38
Twin City Minneapolis (common)	115½	120
United Railways, St. Louis (preferred)	—	—
United Railways, St. Louis 4s	86	85¾
Union Traction (Philadelphia)	467½	47
Western Ohio Railway	a33½	29

a Asked.

Metals

Quotations for the leading metals are as follows: Copper, 11¼ cents; tin, 25.05 cents; lead, 4½ cents, and spelter, 5½ cents.

OAKLAND, CAL.—The gross receipts of the Oakland Transit Company for September, 1902, show an increase of \$11,831 over the earnings for September, 1901. For the six months ending Sept. 30, 1902, the gross receipts show an increase of \$60,632 over the same period of 1901.

OAKLAND, CAL.—A meeting of the stockholders of the Oakland & San Jose Electric Railroad is to be held Dec. 19 for the purpose of voting on a proposition to issue \$3,000,000 bonds. The company was organized by interests identified with the Oakland Transit Company to build an extension of the lines of that company.

NORTHAMPTON, MASS.—The report of the treasurer of the Northampton Street Railway Company, made at the annual meeting of the company, shows the following: Gross receipts, \$144,846; gross expenditures, \$148,338; deficit, \$3,492; passengers carried, 2,848,901; miles of track operated, 26.26; number of employees, 105.

AMHERST, MASS.—The directors of the Amherst & Sunderland Street Railway Company have declared a semi-annual dividend of 2 per cent.

NEW YORK, N. Y.—It is again reported that the Vanderbilt interests are negotiating for control of the Manhattan Elevated Railway.

LINCOLN, NEB.—Minority stockholders say they will apply for the appointment of a receiver for the Lincoln Heat & Power Company, and also demand the Lincoln Traction to produce books in court to show disposition of funds.

WESTFIELD, N. Y.—The Lake Erie Traction Company has obtained consent from the Railroad Commissioners to issue a first mortgage for \$400,000 and to increase its capital stock from \$126,000 to \$500,000. The proceeds from the sale of the additional securities are for the construction and equipment of

the road from Westfield, Chautauqua County, to the Pennsylvania State line.

MINEOLA, N. Y.—The Railroad Commissioners have authorized the New York & Long Island Traction Company, the successor of the Minneola, Hempstead & Freeport Traction Company, to increase the amount of its capital stock from \$125,000 to \$1,000,000, and also to issue a first mortgage for \$1,000,000.

NEW YORK, N. Y.—The American Light & Traction Company has declared a regular quarterly dividend of 1½ per cent on the preferred stock, payable Nov. 1.

NEW YORK, N. Y.—Messrs. Haskins & Sells, certified public accountants, have filed with the banking house of Brown Brothers & Company, an analysis of the financial situation of the United Railways Investment Company, of San Francisco, which corporation owns and operates the street railway system of that city. Messrs. Haskins & Sells compiled this table:

	Six Months	
	Year Ending Dec. 31, 1901	Ending June 30, 1902
Gross earnings	\$5,125,882.97	*\$2,541,996.43
Operating expenses and taxes	3,069,957.71	1,540,587.86
Income from operations	\$2,065,925.26	\$1,001,408.57
Miscellaneous income	17,230.23	8,573.41
Total net income	\$2,083,155.49	\$1,009,987.98

*Property completely tied up by strike April 19 to April 26, 1902.

Supplementing the Haskins & Sells exhibit, there is filed a report by Jilson J. Coleman, a street railway expert of standing, who states that his investigation discloses that in January of this year the system was "earning over 29 cents per car mile, and that as 14½ cents per car mile was a high average for expenses of operation, the system could easily operate on a 50 per cent basis." Mr. Coleman adds the estimate that the San Francisco street car system will show an annual increase of earnings of 10 per cent at least, his calculation being that during the current year the system's earnings will reach \$5,500,000. And upon the basis of these conclusions by Mr. Coleman and the analysis of Messrs. Haskins & Sells, the following estimate is issued by the Stock Exchange house of Talbot J. Taylor & Company:

	1st Year	2d Year	3d Year
Gross earnings	\$5,500,000	\$6,050,000	\$6,655,000
Expenses of operation and taxes	3,000,000	3,025,000	3,250,000
Income from operation	\$2,500,000	\$3,025,000	\$3,405,000
Fixed charges	1,600,000	1,600,000	1,600,000
	\$900,000	\$1,425,000	\$1,805,000
Five per cent dividend on preferred stock..	750,000	750,000	750,000
Surplus	\$150,000	\$675,000	\$1,055,000
Common stock will earn	1½%	6¾%	10.55%

BUFFALO, N. Y.—Justice White, in the Special Term of the Supreme Court, has set Nov. 17 as the date of the sale at public auction of the property of the Buffalo, Hamburg & Aurora Railway.

GREENSBORO, N. C.—The Greensboro Electric Company has issued \$360,000 of first mortgage 5 per cent gold bonds, dated April 1, 1902, and secured by a mortgage for \$400,000, given to the North American Trust Company, as trustee. The bonds are due in thirty years, but are subject to call after five or ten years at 105.

TOLEDO, OHIO.—The Toledo & Indiana Railway has increased its capital stock from \$1,000,000 to \$2,500,000. The increase is made owing to the enlarged plans of the company.

SPRINGFIELD, OHIO.—It is proposed to increase the capital stock of the Dayton, Springfield & Urbana Railway Company from \$750,000 to \$1,500,000.

COLUMBUS, OHIO.—The Columbus Railway Company has declared a quarterly dividend of 1¼ per cent on the preferred stock, payable Nov. 1.

COLUMBUS, OHIO.—The Urbana, Bellefontaine & Northern Railway Company, of Springfield, has increased its capital stock \$500,000, and has filed a mortgage for \$500,000, given to the Continental Trust Company, of New York. The company is building a line from Urbana to Bellefontaine and Kenton.

EASTON, PA.—The Easton & Nazareth Street Railway and the Easton, Tatamy & Bangor Street Railway has consolidated as the Northampton Traction Company.

NASHVILLE, TENN.—By a unanimous vote the committee representing the bondholders of the Nashville Railway Company have decided to accept the offer of 80 per cent tendered by the reorganization committee of the company. This plan of reorganization, which is being financed by Ladenburg, Thalmann & Company, and Isaac Newman & Sons, of New York, contemplates the purchase of the \$2,300,000 outstanding bonds at 80 per cent, and the assumption of all debts, contracts and liabilities of the company, except certain counsel fees. Stockholders of the company will be given an opportunity to pass upon the proposition of the reorganization committee. The bondholders' committee is composed of John B. Ramsay, chairman; Frederick M. Colston, William C. Sedden, John N. Steele and R. Lancaster Williams.

SHEBOYGAN, WIS.—It is reported that Eastern capitalists have completed a deal for the purchase of the Sheboygan Light, Power & Railway Company and the Sheboygan, Elkhart Lake Railway & Electric Company.

TABLE OF OPERATING STATISTICS

Notice.—These statistics will be carefully revised from month to month, upon information received from the companies direct, or from official sources. The table should be used in connection with our Financial Supplement "American Street Railway Investments," which contains the annual operating reports to the ends of the various financial years. Similar statistics in regard to roads not reporting are solicited by the editors. * Including taxes. † Deficit.

COMPANY	Period	Total Gross Earnings	Operating Expenses	Net Earnings	Deductions From Income	Net Income, Amount Avail-able for Dividends	COMPANY	Period	Total Gross Earnings	Operating Expenses	Net Earnings	Deductions From Income	Net Income, Amount Avail-able for Dividends
AKRON, O. Northern Ohio Tr. Co.	1 m., Sept. '02	67,492	35,997	31,495	12,907	18,588	ELGIN, ILL. Elgin, Aurora & Southern Tr.....	1 m., Sept. '02	37,806	20,273	17,533	8,333	9,200
	1 " " '01	59,242	31,396	27,846	12,031	15,815		1 " " '01	34,169	17,089	17,080	8,333	8,747
	6 " June '02	318,937	185,362	133,575	77,556	56,018		9 " " '02	308,241	179,124	129,117	75,000	54,117
	6 " " '01	268,967	164,458	104,510	63,494	41,016		9 " " '01	275,563	153,324	122,242	75,000	47,242
	12 " Dec. '01	617,011	* 350,845	266,166	136,162	130,004							
	12 " " '00	513,725	* 317,475	196,249	141,133	55,117							
ALBANY, N. Y. United Traction Co.	1 m., Sept. '02	132,606	81,990	50,616	23,866	26,750	FINDLAY, O. Toledo, Bowling Green & Southern Traction Co.....	1 m., Aug. '02	24,340	12,033	12,307	-----	-----
	3 " " '02	414,635	251,730	162,897	71,598	91,299		1 " " '01	16,849	9,025	7,824	-----	-----
								6 " " '02	111,972	60,838	51,134	-----	-----
								6 " " '01	80,340	51,464	28,876	-----	-----
BINGHAMTON, N. Y. Binghamton St. Ry. Co.....	1 m., Aug. '02	23,547	12,324	11,223	-----	-----	HAMILTON, O. The Cincinnati, Dayton & Toledo Trac. Co....	1 m., Sept. '02	44,090	23,050	21,040	16,251	4,788
	1 " " '01	21,490	10,886	10,604	-----	-----		4 " " '02	184,502	91,206	93,296	65,241	28,055
	2 " " '02	46,816	23,522	23,294	-----	-----	LONDON, ONT. London St. Ry. Co.....	1 m., Aug. '02	16,102	9,699	6,403	2,270	4,132
	2 " " '01	43,970	31,638	22,932	-----	-----		1 " " '01	16,260	9,347	6,913	1,895	5,019
BOSTON, MASS. Boston Elev. Ry. Co.	12 m., Sept. '01	10,869,496	7,336,597	3,532,899	2,896,359	636,539		8 " " '02	97,503	62,164	35,340	18,174	17,165
	12 " " '00	10,236,994	6,828,110	3,493,884	2,932,839	476,044		8 " " '01	91,676	58,064	33,611	15,971	17,641
Massachusetts Elec. Cos	12 m., Sept. '01	5,778,133	3,915,486	1,862,648	937,206	925,442	MILWAUKEE, WIS. Milwaukee El. Ry. & Lt. Co.....	1 m., Sept. '02	259,591	110,736	148,854	70,591	78,263
	12 " " '00	5,518,837	3,659,337	1,859,500	994,294	865,206		1 " " '01	210,632	93,587	117,045	63,998	53,047
BROOKLYN, N. Y. Brooklyn R. T. Co.....	1 m., Aug. '02	1,226,955	632,087	594,868	-----	-----		9 " " '02	2,014,941	946,509	1,068,432	596,811	471,621
	1 " " '01	1,132,385	684,022	448,364	-----	-----		9 " " '01	1,785,247	878,339	906,908	561,402	345,507
	2 " " '02	2,463,355	1,274,192	1,189,163	-----	-----		12 " Dec. '01	2,442,342	1,185,534	1,256,808	755,139	501,669
	2 " " '01	2,330,942	1,367,635	963,307	-----	-----		12 " " '00	2,220,698	1,129,787	1,090,911	824,665	266,247
	12 " June '02	12,789,705	* 8952,214	3,837,490	-----	-----	MINNEAPOLIS, MINN. Twin City R. T. Co.....	1 m., Aug. '02	323,534	137,969	185,565	60,233	125,331
	12 " " '01	12,101,198	* 7970,635	4,130,563	-----	-----		1 " " '01	283,589	122,035	161,554	57,850	103,704
BUFFALO, N. Y. International Tr. Co.	1 m., June '02	271,245	147,614	123,632	97,043	26,589		8 " " '02	2,327,426	1,060,709	1,266,716	470,500	796,216
	1 " " '01	409,206	192,265	216,941	94,098	122,842		8 " " '01	2,031,771	945,715	1,086,056	445,398	640,657
	1 " " '00	218,738	106,174	112,565	65,348	47,217	MONTREAL, CAN. Montreal St. Ry. Co....	1 m., July '02	198,656	93,966	104,689	19,929	84,760
	3 " " '02	786,280	436,915	349,366	289,063	60,303		1 " " '01	178,180	90,464	87,716	14,142	73,755
	3 " " '01	952,792	485,899	466,894	272,864	194,030		10 " " '02	1,643,837	940,860	702,977	164,228	538,748
	3 " " '00	631,371	333,927	297,444	231,844	75,601		10 " " '01	1,533,206	931,933	601,272	104,409	496,863
CHARLESTON, S. C. Charleston Consol'ded Ry. Gas & El. Co....	1 m., Aug. '02	45,217	31,191	14,026	13,357	669	NEW YORK CITY. Manhattan Ry. Co....	12 m., June '02	11,291,711	5,518,585	5,773,126	2,699,670	3,073,456
	1 " " '01	45,474	28,296	17,178	13,627	3,481		12 " " '01	10,253,271	5,253,329	5,000,042	2,677,706	2,322,336
	6 " " '02	358,984	203,200	155,784	81,064	74,720	Metropolitan St. Ry...	3 m., Dec. '01	3,887,936	1,723,972	2,143,964	1,151,140	992,824
	6 " " '01	246,438	163,145	83,293	82,618	674		3 " " '00	3,786,030	1,699,649	2,086,381	1,138,467	947,914
CHICAGO, ILL. Chicago & Milwaukee Elec. Ry. Co.....	1 m., Sept. '02	19,347	6,988	12,359	-----	-----		12 " June '02	15,866,641	7,385,833	8,480,758	4,815,421	3,665,337
	1 " " '01	19,197	6,548	12,649	-----	-----		12 " " '01	14,720,767	6,755,131	7,965,636	4,534,068	3,431,567
	9 " " '02	147,407	59,847	87,560	-----	-----	OLEAN, N. Y. Olean St. Ry. Co.....	1 m., July '02	6,569	3,216	3,353	1,771	1,502
	9 " " '01	132,159	56,118	76,041	-----	-----		1 " " '01	2,207	954	3,747	1,768	1,979
CLEVELAND, O. Eastern Ohio Traction Co.....	1 m., Sept. '02	21,375	10,808	10,567	6,033	4,533		12 m., June '03	56,055	29,118	26,937	16,318	10,619
	1 " " '01	17,761	8,413	9,348	5,122	4,226		12 " " '01	52,018	26,228	25,790	16,755	9,035
Cleveland, Elyria & Western.....	1 m., Sept. '02	30,464	14,999	15,464	-----	-----	PEEKSKILL, N. V. Peekskill Lighting & R. R. Co.....	1 m., July '02	9,387	5,290	4,097	2,083	2,013
	1 " " '01	27,430	12,347	15,083	-----	-----		12 " June '02	86,795	* 56,392	30,402	23,125	7,277
	9 " " '02	219,968	122,051	97,919	-----	-----	PHILADELPHIA, PA. Union Traction Co.....	12 m., June '02	14,118,159	6,402,338	7,715,820	* 663,7781	1,078,088
	9 " " '01	185,992	100,787	85,206	-----	-----		12 " " '01	13,431,651	5,836,186	7,595,494	* 673,4328	861,266
	12 " Dec. '01	249,260	136,865	112,394	57,023	55,371	American Railways....	1 m., Sept. '02	125,159	-----	-----	-----	-----
	12 " " '00	179,698	102,393	77,304	34,562	42,742		1 " " '01	91,152	-----	-----	-----	-----
Cleveland, Painesville & Eastern.....	1 m., Sept. '02	18,499	10,035	8,464	-----	-----		3 " " '02	245,455	-----	-----	-----	-----
	1 " " '01	18,822	9,649	9,174	-----	-----		3 " " '01	180,811	-----	-----	-----	-----
	9 " " '02	144,464	76,966	67,499	-----	-----		12 " June '02	1,009,500	-----	-----	-----	-----
	9 " " '01	124,184	63,243	60,941	-----	-----		12 " " '01	841,298	-----	-----	-----	-----
	12 " Dec. '01	164,971	* 87,102	77,869	72,500	5,369	ROCHESTER, N. Y. Rochester Ry.....	1 m., Sept. '02	93,762	46,063	47,699	24,833	22,866
	12 " " '00	141,112	* 89,592	71,520	72,500	† 980		1 " " '01	82,428	45,854	36,573	24,942	11,632
COVINGTON, KY. Cincinnati, Newport & Covington Ry. Co.	1 m., Aug. '02	96,118	* 53,295	42,823	22,238	20,585		9 " " '02	821,852	433,691	388,161	223,361	164,800
	1 " " '01	74,525	* 45,741	28,784	15,807	12,977		9 " " '01	758,110	449,253	308,858	222,018	86,840
	8 " " '02	596,156	* 314,026	282,130	131,230	120,899	SYRACUSE, N. Y. Syracuse R. T. Co....	1 m., Aug. '02	60,580	33,314	27,266	19,025	8,241
	8 " " '01	535,784	* 327,615	208,169	125,328	82,841		1 " " '01	54,943	30,314	24,729	19,025	5,704
DENVER, COL. Denver City Tramway Co.....	1 m., Apl. '02	124,516	66,533	57,983	32,865	26,119		2 " " '02	123,151	67,679	65,471	38,055	17,421
	1 " " '01	116,357	62,866	53,490	31,304	22,186		2 " " '01	114,376	61,834	52,542	37,996	14,546
	4 " " '02	481,348	261,118	220,230	131,259	88,972	TOLEDO, O. Toledo Ry. & Lt. Co...	1 m., Sept. '02	127,640	62,001	65,698	38,921	26,717
	4 " " '01	435,297	236,915	198,382	125,632	72,759		1 " " '01	114,667	50,512	64,156	37,813	26,343
	12 " Dec. '01	1,507,293	815,321	688,965	383,150	305,755		9 " " '02	1,069,059	546,588	522,470	342,709	179,782
	12 " " '00	1,302,296	722,458	579,839	374,291	205,548		9 " " '01	959,099	460,885	498,214	301,730	199,484
DETROIT, MICH. Detroit United Ry....	1 m., July '02	325,898	182,848	143,050	-----	-----	Lake Shore Elec. Ry. Co.	1 m., July '02	49,122	25,961	23,161	-----	-----
	1 " " '01	302,988	149,812	153,176	-----	-----		1 " " '01	39,447	21,837	17,610	-----	-----
	6 " June '02	1,600,675	* 907,044	693,631	395,739	297,892		7 " " '02	237,855	158,911	78,944	-----	-----
	6 " " '01	1,384,181	* 775,347	608,834	345,119	263,715		7 " " '01	187,370	133,283	53,987	-----	-----
	12 " Dec. '01	2,919,171	* 1,596,665	1,322,046	652,277	670,129	NEW BRIGHTON, S. I. Staten Island Elec. Ry.	3 m., June '02	56,635	35,622	21,013	25,000	† 3,986
	12 " " '00	2,575,277	* 1,439,058	1,136,219	616,468	519,751		3 " " '01	56,936	35,600	22,336	25,000	† 2,668
Detroit and Port Huron Shore Line	1 m., July '02	44,699	35,687	19,012	-----	-----	YOUNGSTOWN, O. Youngstown - Sharon Ry. & Lt. Co.....	1 m., Aug. '02	28,990	* 20,450	18,540	-----	-----
	1 " " '01	43,759	19,471	24,289	-----	-----		8 " " '02	276,403	* 154,479	121,924	-----	-----
	1 " " '02	290,											