

Money, charging him with assault. The street railway company decided to await the result of the trials in the police court, very justly refusing to discharge its employee unless he should be shown to be in the wrong. The preponderance of evidence submitted at the preliminary hearing indicated that the Senator and not the conductor was to blame for the disturbance. Considerable criticism was provoked by the action of the prosecuting attorney offering to withdraw the charges against the conductor, and asking that those against the Senator be dismissed. The traction company opposed this proceeding and demanded an investigation. It was shown that Senator Money used his influence not only to bring about the discharge of the conductor, but also to secure the dismissal of a member of the fire department who had interfered when he drew his knife on the conductor. In spite of the protest of the conductor, the traction company and the fireman, the district attorney persisted in withdrawing the complaint, and the charges were all dismissed. This action on the part of Senator Money in seeking to protect himself through his personal and political influence is generally condemned.

Senator Money is what they call a "character" in Washington, and he has an exaggerated sense of his importance. He has had several personal altercations during his public career, but heretofore he has only indulged in such pleasantries as hurling inkstands at those who opposed him in debate or otherwise offended him. This, by the way, is considered a very effective argument in the circle in which Senator Money moves and is a handy expedient for men of his caliber and temperament when invective and ordinary methods of intimidation fail. It is this class of men who violate rules with impunity, utterly disregard the rights of others and refuse to observe the ordinary conventionalities. Their favorite diversion is to abuse employees for fancied wrongs inflicted by corporations; they are opposed to the existing order, and they publicly display their resentment. Fortunately there have been few public exhibitions like the outbreak at Washington, but there are many equally annoying and unwarranted invasions of the rights of corporations and infractions of their rules, especially on street car lines, in all parts of the country. Many men seem to consider themselves too important to be bound by the same regulations that govern ordinary mortals, but corporations engaged in public service cannot make nice distinctions of this kind. Without reference to the Money case, it may be suggested that it would be well for the street railway companies to make an example of men whose conduct is offensive to the general traveling public as well as annoying to street railway employees. We are pleased to notice, therefore, that the Capital Traction Company supported its conductor in this matter. Public sentiment will sustain the company in this position. There is a grave public issue involved here, a crying evil, and the question should be met and solved.

Flat Wheels on Street Cars

The Health Department of New York has been making an examination of the rolling stock of the Metropolitan Railway Company. About a month ago the department notified the company that all "flat" wheels must be removed from the cars, and last week the work of official inspection commenced. The company has found some difficulty in getting new wheels lately, it is said in explanation of the complaints that have been reported, but in spite of the fact that the rolling stock just now is not in as good condition as usual because of this scarcity of wheels the Health Department inspection revealed only 104 flat wheels. The Metropolitan Company is operating daily 2143 cars, requiring 12,000 wheels in constant service, and it speaks well for the management that out of this number the city inspectors were able to find such a small percentage of flat wheels, even at a time when it is admitted the rolling stock is not up to the usual standard. Of course it is the interest of the company to keep the rolling stock in good condition, and the public may rest assured that flat wheels will be replaced by the management as soon as they appear without interference or suggestion from the city officials.

Service on Long Lines

An interesting long run will soon be possible along a particularly fine stretch of New England coast from Boston northward to York, Maine. Save for a link including a long trestle and bridge across the Hampton marshes and river, the chain is now complete. When this is finished, some time this month, probably, the through run will make one of the most pleasing trolley trips in the country. It is not a continuous one, in the sense that there is no change of cars, but it is singularly well adapted to catch through traffic in large amounts all through the summer season, which is growing there, as everywhere, progressively longer year by year. We always have in mind in such cases the possibilities of developing the long-distance travel. The modern trolley line is something far more important than a street railway of the old type, and has infinitely greater chances for wide usefulness. If one looks back only ten years the changes that have been wrought in the comfort of suburban traffic are truly stupendous. It has been in the main a spontaneous growth in response to a real demand, and it would be a most interesting thing, although immensely difficult, to figure out the increase of values in a well-developed "trolley country" due to the increased facilities for travel. We have in mind, for instance, one short electric line connecting a fine old New England country town with its railway station seven miles away. It is a rambling, rural road passing through a region exclusively of farms, with none of the advantages of suburban connections to increase its usefulness. As an investment it has not been a brilliant success, but has managed to keep its nose above water and to pay its fixed charges and upkeep. Yet, as a factor in public convenience, it has been most important, and it is within bounds to say that it has actually paid to the community in increased valuations fully its cost, and, in the long run, will pay to the community far more than it will ever turn over directly to its stockholders. Farms along the line have increased in value by at least 50 per cent, laborers have a wider field and the community is more prosperous.

But we digress. When trolley lines are welded into a long interlinked system such as that we are here discussing, they confer upon the community not only greater local facilities for travel, but they bring all parts of it nearer to the city in dollars and cents, if not in miles. Northern New England is becoming an essential part of the nation's playground, and the easier it is to get at the better for all concerned. In a long coastwise line there is not only a large local excursion traffic all through the summer, but there is a chance for a more extended business as soon as the through facilities are made equal to the situation. The time has come, we think, for a persistent effort to build up long-distance traffic by long-distance cars intended for that specific purpose. What would be the effect of putting into service on such a line through chair cars intended to promote comfort on long runs at an increased rate of fare sufficient to make up for their somewhat increased cost and lessened capacity? We are inclined to think that through the summer months such a service—a sort of Pullman service in miniature—abolishing changes of cars as in ordinary railway practice, could be made to pay handsomely. Such special accommodations have already been tried in a limited degree, but never, so far as we are aware, with the purpose of building up through traffic in a long interconnected system of electric roads. If anywhere, it should work well for lines where there is heavy summer travel and a chance for long runs. Hanging to a strap or a running board is all well enough for a mile or two, but it palls at the end of a hot day or on a long excursion. The trolley road running usually through a fine country, free from cinders and the dust of the roadbed, has peculiar attractions during the summer months, but, as generally operated, fails of comfort on long trips by reason of crowding and the inconvenience of changing cars.

Such problems as this will, of course, in due time work out their own solution, but it seems to us that the electric road, as it evolves into its destined greatness as part of the country's system

of travel, will fail of one of its important functions if it does not take advantage of its opportunities and take its share of the long-distance travel. Every step that makes travel over electric lines more convenient and comfortable will in the long run pay. When the public stands with a road that road prospers, and the public does stand by these long cross-country roads. They have troubles of their own, of course, but they benefit too many people to suffer from such bitter opposition as the resentment against many steam roads provoke. The man who takes his dinner pail and rides half a dozen miles to his work for a nickel knows that the trolley road benefits him personally, and he wants to see it prosper. Opposition to such a line as has furnished us the text for this article comes mainly from exclusive summer colonies at various points along the road whose cherished privacy is disturbed, and who do not like to ride on it on account of contact with the gentleman previously mentioned. It may be that some special provision for the chief source of opposition would draw traffic even from its ranks, and certainly a man who had once made a long trip along the beautiful coast country in a comfortable chair car would take a more cheerful view of the next electric road that might invade his bailiwick. At all events the subject is one well worth the contemplation of progressive managers. We may be too optimistic in our view of the future of electric traction, but when we look back over a decade and see what has already been accomplished we feel that still greater things are in store, and that the vast network of roads that is expanding year by year should be and will be something more than a collection of incoherent fragments of what might be a great system of universal traffic.

Another Blow at Three-Cent Fares

There has been litigation in Indianapolis over the fare question for many years, but at last the trouble appears to be finally settled, if one leaves out of account the application of a new company, the Indianapolis Interurban Terminal Railway Company, for a franchise to operate under 3-cent fares. Last week the State Supreme Court, at Indianapolis, decided a case brought by Charles Finley Smith to test the right of the Indianapolis Street Railway Company to charge more than three cents fare. Mr. Smith, by the way, is now the president of the Indianapolis Interurban Terminal Railway Company, a corporation which has come into existence since the suit was brought. The situation at Indianapolis for several years has hinged on acts of the State Legislature intended especially for that city. In 1897 the Legislature passed an act, providing that street railway companies in cities of over 100,000 inhabitants should not be permitted to charge over 3 cents per passenger. The constitutionality of this act was successfully attacked by the Central Trust Company, of New York, trustee for the mortgage bondholders of the Citizens' Street Railroad Company then operating in Indianapolis. In the meantime franchise matters in Indianapolis were getting into a bad tangle, and finally January 18, 1901, was fixed as the date of expiration of the franchises of the Citizens' Street Railroad Company, when it became evident that something must be done to straighten matters out. In 1899 the State Legislature had practically repealed the 3-cent fare act, and authorized the city to make a contract with any company which could procure and surrender all the outstanding franchises of every description, stipulating, however, that such a contract should provide that the rate of fare should be 5 cents for each cash fare and six tickets for 25 cents. Under this act the present franchise was granted the Indianapolis Street Railway Company in 1899. It was after the passing of this act that Charles Finley Smith, to test the validity of the 3-cent fare system of 1897, boarded a car and refused to give more than three cents for his fare. Upon being ejected he brought suit for \$10,000. The lower court decided against him, and the Supreme Court last week confirmed the action of the lower court, which had held that the last act passed by the Legislature was practically a repeal of previous acts, and was intended as a readjustment of the whole street car situation in Indianapolis. This decision deals with a special legal phase of

such controversies, to wit, the contention of class legislation in granting what are claimed to be special franchises or privileges. The decision by the Supreme Court of the United States in the Michigan 3-cent fare case deals with a broader question, namely, how far ordinances prescribing street railroad fares constitute contracts within the protection of the Federal Constitution.

The disposition of the Indianapolis question by the Supreme Court will be favorably received among investors particularly, and should be welcomed by the people of Indianapolis who have the honor of the city at heart, as it is in confirmation of the principle of good faith between public service, corporations and communities. The effect of the decision cannot fail to exert a favorable influence upon the value of Indiana securities generally, as it will lend stability to them and reassure investors that contracts and franchise grants will be sustained and enforced by the courts. Incidentally it will strengthen materially the position of street railway managers throughout the country on the 3-cent fare question.

Policemen and Firemen Must Pay

The decision of the Appellate Division, at Albany, May 7, to the effect that policemen and firemen are public officers so far as the constitutional provision which prohibits public officers from using passes is concerned, will, of course, apply to all the cities of New York, and if the law is enforced it will have a considerable influence upon the receipts of the companies. The case upon which this decision was based was brought by the Mayor of Albany to compel the local traction company to carry free members of the Albany Police and Fire Departments who presented certificates from the Mayor of employment by the city. The Mayor held that the firemen and policemen were public servants as distinguished from public officers. The court denies this contention, and declares the act of 1895 unconstitutional, because in compelling the transportation companies to give policemen free rides it deprives the companies of their property without due process of law, and takes private property for public use without compensation.

When the subject was called to the attention of Corporation Counsel Rives, of New York, he coincided with the opinion expressed in the decision, and said the act of 1895 was clearly unconstitutional. It has been customary throughout the State to give policemen and firemen free transportation upon street railway lines. There are at present several thousand passes in use by members of the New York Police Department and uniformed firemen. Under the court's ruling the policemen and firemen cannot legally accept free transportation.

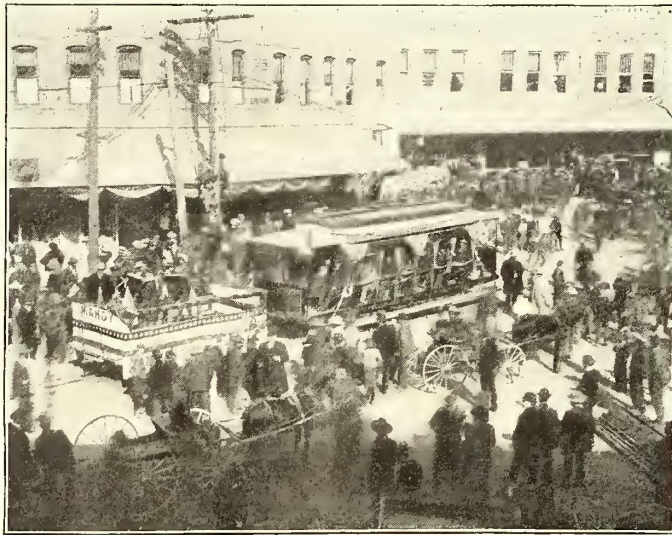
Not Good Policy

A certain Western company that has in contemplation the construction of an extensive system of interurban lines has recently inserted in the want column of a leading daily paper in one of the cities through which the road is to pass an advertisement that discloses a new method of inducing clerks, workmen and others of moderate means to become interested in the road by subscribing for stock. Motormen, conductors, agents, bookkeepers and electricians are advertised for, and the plan, it would seem, is to sell applicants for positions a share, or shares, of stock and then place their names on file, assuring them the preference for appointment to positions when the road is completed. Now the advertisement is meager in the information it contains, and while it certainly is desirable to have interested in a road as many as possible of the people who live along the route, it does seem that this method is open to criticism, especially when so many franchises are being obtained by promoters whose standing will admit of questioning. There is no dearth of capitalists who are ever ready to finance legitimate electric railway enterprises, and if it is deemed advisable to have the employees of a company, or the residents along the route of a projected road, become interested in the proposition, it would seem that there are numerous ways superior to the one noted herein, and ways that are not calculated to arouse suspicion as to the soundness of the enterprise.

The El Paso Electric Railway Company

On Jan. 11, 1902, there was put in operation between El Paso, Tex., and Juarez, Mexico, the first electric railway connecting the two republics. For many years the two cities have been served by mule roads, operated in a more or less desultory way by three distinct corporations, the service being wholly unequal to the demands of the traffic, slow and uncertain. In the spring of 1901 a franchise for an electric railway was secured by local people, and during the summer the firm of Stone & Webster, of Boston, became interested in the enterprise. Controlling interests were acquired in the three railway companies and in the International Light & Power Company, which furnishes all the municipal and a large proportion of the commercial electrical service of El Paso, and about Sept. 1 the initial orders for material were placed.

The work of construction was prosecuted vigorously, and on the opening day 5 miles of street railway, including the line across the river to Juarez, were put in regular operation. The Annual Carnival and Street Fair of El Paso was to be commenced on Jan. 14, and for this reason the opening of the road was more



OPENING OF THE ELECTRIC RAILWAY

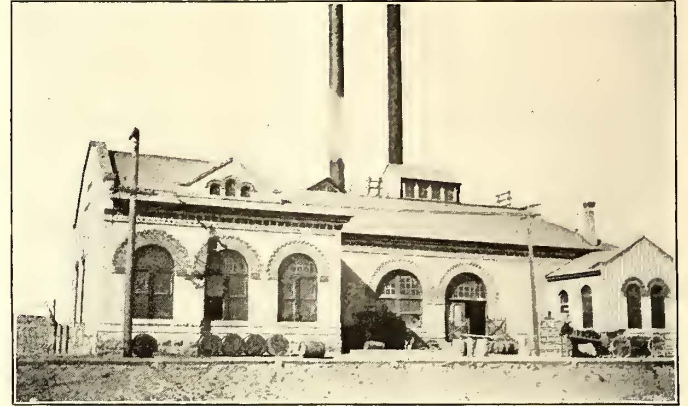
of a popular celebration than is usually the case. The first train over the line consisted of a flat car, on which stood in dignified silence "Old Mandy," the oldest mule in point of service owned by the company, then a motor car carrying the mayors of the two cities and other city, county and federal officials. Other cars followed, carrying guests of the company, all the cars being profusely decorated with American and Mexican flags and the carnival colors, and there were music and general enthusiasm and good feeling on all sides. Superintendent of Construction M. F. Burke ran the first car from the United States into Mexico.

The El Paso Electric Railway Company owns all the track on the American side of the river, and the El Paso & Juarez Traction Company that cross the border in Mexico. The El Paso company furnishes all rolling stock and has entire charge of the operation and maintenance of the system, the Mexican company simply furnishing track and overhead construction and taking a proportion of the net receipts. The system when completed will have about 12 miles of track, located as shown on the accompanying map.

The track construction consists of T-rail, weighing 60 lbs. and 65 lbs. per yard, laid on 6-in. x 8-in. x 8-ft. Burnetized pine ties, and bonded with Chase-Shawmut bonds soldered to foot of rail. The rails break joints and lotted special work is used. The sub-construction consists of gravel ballast. The trolley wire is 00 B. & S. gage with span-wire construction in the city, and top brace brackets outside, and the construction of the lines has been substantial in every particular. Round trolley wire and red cedar poles are used. The maximum grade is 6 per cent and 1300 ft. long, and the minimum curve radius 35 ft. In general the character of the route is flat.

For rolling stock, eight motor cars and four trailers have been provided. All are nine-bench open cars, 30 ft. long, and were built by the American Car Company, of St. Louis. They are mounted on "Lord Baltimore" single trucks, made by the Baltimore Car Wheel Company, of Baltimore, Md., equipped with two Westing-

house 12-A, 25-hp motors. The wheels are 33 ins. in diameter. The platforms are unusually long, in order to handle better the rush of travel in connection with bull fights, ball games, etc. It has already been found that the business will greatly exceed expectations on frequent occasions, all the cars are now being used at one time, and six combination cars of the California type are being built by the John Stephenson Company for shipment in June. New Haven car registers are installed. The cars are operated at 12 miles per hour maximum speed.



CENTRAL STATION—INTERNATIONAL LIGHT AND POWER COMPANY

A substantial car house of brick, with timber roof, has been built, and shop facilities provided for making all ordinary repairs to rolling stock and equipment. The car house is 135 ft. x 75 ft., and has a capacity of sixteen cars. The shop is 120 ft. x 30 ft., an unusually complete one for a road of this size being necessary on account of its distance from manufacturing centers.

Power for the operation of the road is furnished by the International Light & Power Company, which has purchased for this service a 200-kw Westinghouse generator, direct-connected to a Ridgeway engine, carrying the load temporarily on a 100-kw



VIEW IN EL PASO—THE OLD RAILWAY SYSTEM

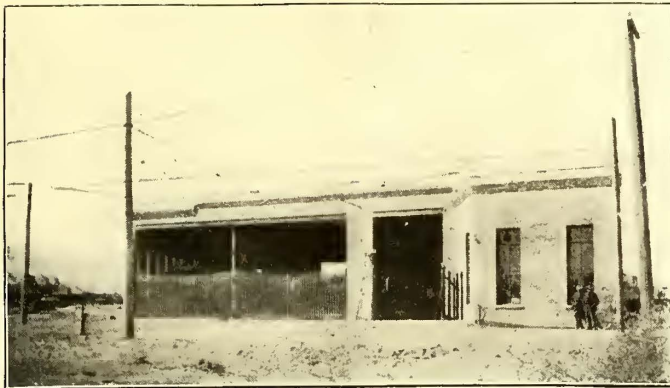
generator belted to one of its lighting engines. As an indication of the growth and prosperity of the city it may be stated that the International Light & Power Company doubled its plant capacity of last summer by the installation of a 200-kw two-phase generator in October, and has already ordered a 300-kw direct-connected Westinghouse alternator, to be in operation next October.

A plat of about fifty acres of well-shaded land has been purchased near Washington Park, which is owned by the city, and although plans for its development have not been determined, it is contemplated that an artificial lake will be built and fed from an artesian well by a motor-driven pump. Refreshment booths and shelters will be built, leaving baseball and other more elaborate amusements to Washington Park, which has been leased for ten years by some local people. As there are now no facilities for amusement and relaxation in the city except the bull fights, held at frequent intervals in Juarez, and an occasional baseball game, it is expected that these parks will add largely to the revenue of the company.

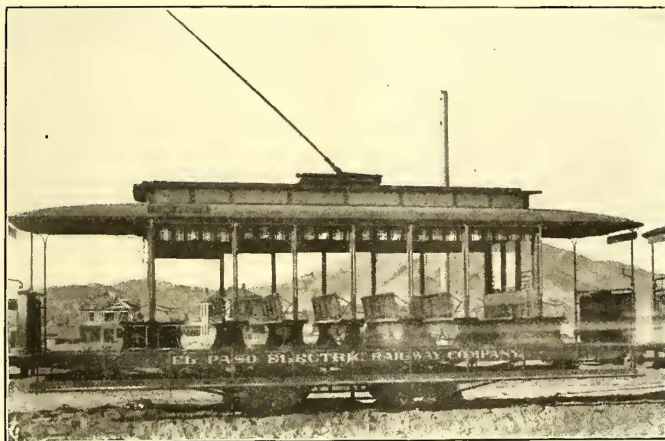
Chicago Transfer Suits

A most remarkable series of suits have been brought in Chicago against the Chicago Union Traction Company regarding the transfer of passengers between cars of the Chicago Union Traction Company and those of the Chicago Consolidated Traction Company. The Chicago Union Traction Company operates under lease from several companies, the surface lines of the north and west sides extending from the center of the city to the outlying districts. The suburban surface lines on the north and west sides are the property of the Chicago Consolidated Traction Company, which was also acquired by the Chicago Union Traction Company April 14, 1900.

It appears that somewhere among Chicago ordinances is one requiring free transfers to be given between all lines under the same ownership or management. A short time ago suit was brought by the city to compel the Union Traction Company to observe this ordinance. Judge Ball gave the decision that transfers must be given between the cars of the Chicago Union Traction Company and the Chicago Consolidated Traction Company.



FRONT OF CAR HOUSE



STANDARD MOTOR CAR

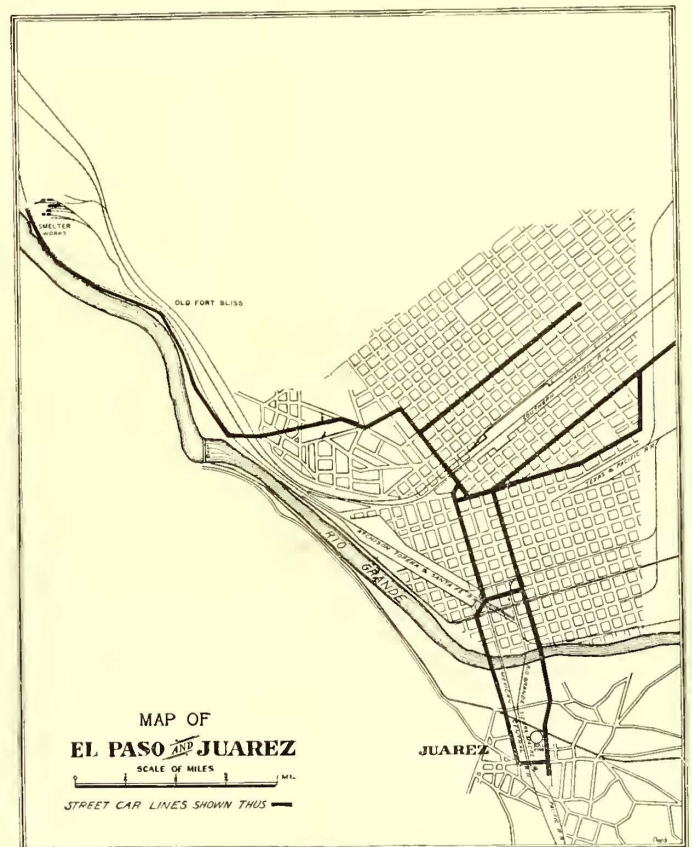
The company at once appealed the case, but the citizens of certain outlying parts of the city who had been paying two fares to reach downtown proceeded at once to demand their "rights," as they considered them, under Judge Ball's decision, and refused to pay a second fare after being refused transfers.

Then followed a series of performances the like of which has never before been seen in street railway history. A number of citizens of Austin made it a regular practice for several days to ride over the road, demanding transfers between the Consolidated and Union lines, and after being denied these transfers to refuse to pay fare on the connecting car. These passengers were at first forcibly ejected, where force was necessary, and everyone of these cases was taken by the city and made the basis of a suit prosecuted by the city attorney against the Union Traction Company. Some residents of Austin, headed by an Alderman from that section, amused themselves for a week or more by forming "baiting parties," as they were called, to furnish cases of this kind. In this way over 500 suits were accumulated and filed against the company for failure to observe the ordinance. As time wore on, and the refusal of Austin citizens to pay a second fare continued, conductors were given instructions to let people of this kind ride free rather than involve the company in damage suits by forcibly eject-

ing passengers. Fare was demanded, but, if refused, nothing more than "moral suasion" was employed. The cases are being brought to trial in a justice court and tried by jury.

The first two cases resulted in a decision for the company, but have had rather a disastrous effect on the company's interests, because it subsequently transpired that the outside attorneys who were employed by the Union Traction Company had used methods to win the cases and the favor of their clients which were anything but beneficial to the company, and a jury-bribing scandal was the result. The third case resulted in a decision against the company and a \$200 fine. This case has been appealed. This will bring it into a court competent to decide on the legal points involved.

The situation is a rather complicated one. In the first place, the legal relations of the companies is somewhat involved, and in the second place there appears to be some question as to the constitutionality of the ordinance requiring universal transfers on lines owned or controlled by the same company. The Union Traction Company leases the North Chicago Street Railroad Company and the West Chicago Street Railroad Company, and



MAP OF EL PASO LINES

these in turn lease several smaller companies. The Chicago Union Traction Company also owns the greater part of the stock of the Chicago Consolidated Traction Company, which latter owns the suburban feeders of the city lines on the north and west sides. Of course, the companies are legally distinct, although always closely allied and operated in part by the same men. As to the inherent injustice of requiring transfers for unlimited distances, there can be no question, and even without inquiring into the legal merits of the cases it seems unlikely that the legal department of the Chicago Union Traction Company has left any loophole in the scheme of organization and consolidation which would permit of a universal transfer ordinance being enforced under present circumstances.

Parlor Cars for Bridal Parties

John Bramlette, manager of the electric railways in the East St. Louis system, proposes to build and equip two parlor cars for the exclusive use of bridal couples. The cars will be of regulation length and height, and will be provided with cushioned chairs. Large mirrors will be placed at the ends and the sides, and the cars will be provided with all the little articles necessary to a pleasure trip. The cars can be secured on application by telephone, and will be in waiting at either end of the line for the couples who wish to charter them for honeymoon trips.

Charing Cross Road and Tottenham Court Road, and then turns along Drummond Street, past the front of Euston Station. Bending northward, it continues along Seymour Street and High Street, Camden Town, to its terminus at Hampstead.

Parliamentary sanction is now being sought for extensions from Hampstead to Golders Green (where the line emerges into the open), and from Kentish Town to Highgate.

Stations are proposed on the main line at the following points: Charing Cross, Strand, Cranbourne Street, Oxford Street, Euston Road, Euston Station, Camden Road, Chalk Farm, Belsize Park, Hampstead and Golders Green, and on the Highgate branch there are to be stations at Kentish Town and Archway Tavern, Highgate Hill.

The Baker Street & Waterloo Railway commences near the Metropolitan Railway Company at Baker Street, and, after skirting Regent's Park, runs along Portland Place to Piccadilly Circus, where it passes under the Brompton & Piccadilly Railway, thence down the Haymarket and Cockspur Street to Northumberland Avenue, under the Thames, to the Waterloo terminus of the London & South-Western Railway.

An extension is authorized from Baker Street to the Great Central terminus at Marylebone, and also powers were obtained for an extension at the northern end to Bishops' Road, and at the southern end to the Elephant and Castle.

Stations are proposed at the following points: Bishops' Road, Edgware Road, Great Central terminus, Baker Street, Oxford Circus, Piccadilly Circus, Trafalgar Square, Embankment, Waterloo, Elephant and Castle.

By carefully studying these particulars it will be seen at once that Mr. Yerkes intends giving London during the next five years a most comprehensive system of rapid transit, chiefly by deep level tubes working in connection with the District Railway, and with such other railways as are already in existence. It is a magnificent scheme and one which has the universal approval of the English press and of every long-suffering Londoner. Cheap and uniform fares will be inaugurated, an all-night service given, the most up-to-date cars used and everything possible done to promote comfort and speed, while the difficult problem of ventilation and vibration will receive every attention. It is extremely probable that the electric locomotive will not be used, but some system of multiple unit adopted. As has already been stated, the generating station for all these lines will be built at Chelsea, one enormous station furnishing current for all these projects. The plans for this station are now nearly completed, and most of the important contracts for machinery and apparatus given out. Power will be furnished by Westinghouse steam turbines and generators, and steam will be provided by Babcock & Wilcox boilers, of which forty-eight have already been ordered (with a privilege of sixteen more on the same terms), each having a heating surface of 5212 sq. ft. The excitors will be furnished by the British Thomson-Houston Company, of Rugby, and these will be driven by engines by W. H. Allen Son & Company, of Bedford. Greene economizers have also been ordered, and the largest condensers ever built have been ordered from James Simpson & Company, Ltd., each having a cooling surface of 15,000 sq. ft. A special feature of the power house will be the erection of an electric gantry crane, which will travel on rails outside of the power house set at 12-ft. gage, and which will get current from an underground conduit. Messrs. Jessop & Appleby are building this crane, which will be able to lift 40 tons from barges in the neighboring creek, move along the truck, and deliver sideways its load on the engine room floor, 19 ft. above the level of the rails. In the equipment of the track of the District Railway two third rails will be used for each track. These third rails will be of 100-lb. section, and one will be situated outside and alongside the track and the other between the running rails. They will be set on specially constructed contact-rail insulators, and be heavily bonded, but by which system has not yet been decided. For much of the foregoing information regarding the equipment the writer is indebted to James H. Chapman, Mr. Yerkes' engineer, who has the whole of the engineering work in charge, and who also has informed him, that as the permanent station cannot be completed for at least two years, a temporary station will be erected for the equipment of one of the branch or spur lines of the District Railway, which will be the first to be equipped, and on which a regular service of electric trains will be put as soon as possible, of exactly the type to be used on the District Railway later on.

Where a property owner who had not given his consent for the construction of an electric railway past his farm, and who brought suit for damages because access to the property had been interfered with by the tracks, the Supreme Court, of Ohio, found for the plaintiff, reversing the decision of the lower courts.

Three-Cent Fare Injunction Dissolved

(SPECIAL DESPATCH TO THE STREET RAILWAY JOURNAL.)

CLEVELAND, May 6.—Judge Strimple, of the Common Pleas Court, has dissolved the temporary restraining order against the city and John B. Hoefgen's proposed 3-cent fare lines. The court administered a rebuke to Plaintiff Reynolds, stating that testimony showed that he was not the real plaintiff, and that others were backing him. The court held that Hoefgen's franchise was a legal grant, and that the fact that the route had been slightly changed because certain consents could not be obtained made no difference, since the general route was the same as advertised for. The plaintiff's attorneys asked for a new hearing, but were refused, and immediately went to Elyria, where the Circuit Court is in session, and applied for an injunction and a new trial. Hoefgen is in Brooklyn and does not expect to commence work until the matter is settled.

The injunction proceedings were instituted in the name of property owners and sought to restrain the city, John B. Hoefgen and the People's Street Railway Company from beginning construction work on the proposed 3-cent fare line. The order was granted April 6, four days before the ordinance was to have become operative. The contention was made that the ordinance was not passed regularly, and was illegal, because the requirements were not complied with.

To Force Reduction of Fare on Cleveland Lines

Mayor Johnson, of Cleveland, has taken the initiative in the matter of forcing the Cleveland Electric Railway Company and the Cleveland City Railway Company to reduce the fare on their lines. The administration claims that the Woodland Avenue and Kinsman Street franchises expire September 20, 1904, and that those on Central Street and Quincy Street expire some time later. The Cleveland City Railway Company maintains that the first-mentioned franchises do not expire until 1908. To force matters Mayor Johnson has induced the board of control to pass a resolution setting forth that, as the franchises for the lines here mentioned are about to expire, and "whereas, much time must necessarily be consumed in the legal steps for granting the franchises, safeguarding the property rights of the present owners and providing for the acquisition of the present property in case the owners are not successful in bidding; and, whereas, there should be secured for the patrons of these lines, immediately upon the expiration of the present grants, the lowest fare obtainable by competitive bidding; therefore be it resolved, that the director of law be requested to prepare at once the necessary resolutions and ordinances enabling the city to receive bids for carrying passengers on said lines for a period of twenty years, dating from the expiration of the present grants."

Mayor Johnson is quoted as saying that the city will accept no bids except for a 3-cent fare. Under this regulation the existing companies will have to bid for the territory which their tracks now occupy, and an outsider would have equal chance for the franchise.

It is thought quite possible that the companies may go before the State Legislature and endeavor to secure the passage of a bill taking from the city officials the right to grant street railway franchises.

Increase in Wages at Atlanta

The Georgia Railway & Electric Company, of Atlanta, Ga., has put into effect a change in the wage schedule, by which a considerable number of motormen and conductors of the Atlanta Railway & Power Company, now under the control of the Georgia Railway & Electric Company, receive substantial increases in salary. Under the old arrangement, the men received 13 cents per hour for the first year, 14 cents for the next two years, and 15 cents thereafter. The new plan provides for 13 cents per hour for the first year, 14 cents the second year and 15 cents thereafter. Thus the men will reach the maximum rate of 15 cents one year earlier than heretofore. The immediate effect of the new arrangement is to increase the rate of pay from 14 cents per hour to 15 cents per hour of about fifty men, who have been in the service of the Atlanta Railway & Power Company over two years, and bring about 160 men who have been in service less than two years one year nearer the 15-cent rate. The increase amounts to nearly 5 per cent in the total amount paid by the company as wages.

The employees of the Atlanta Rapid Transit Company, also under control of the Georgia Railway & Electric Company, will continue to receive 15 cents per hour, irrespective of the length of time employed, as they were hired at that rate.

Fuel Oil in Power Plants*

BY W. W. REED

The use of fuel oil increases the steaming capacity of boilers in the neighborhood of 35 per cent. At the plant of the Houston Lighting & Power Company, with a certain load on the generators, one boiler using oil now does easily what formerly required two boilers using coal.

In using fuel oil the boiler room and premises can be kept tidy and clean, as there is no unsightly coal pile, no dust, ashes or clinkers.

Insurance companies will not allow a gravity system of feeding the burners, so that there is no oil above the level of the burners. Recent fires, so near to the oil tanks that this oil was heated to a very high temperature, have shown that there is little or no danger to be feared on that score, as the oil did not explode or even ignite and burn.

The fires may be regulated from a low to an intense heat in a very short space of time. The firebox, with proper use of oil, will last a great deal longer than with the use of coal, and there are no repairs and maintenance of fire tools. As the fire doors do not have to be opened, cold air is not suddenly admitted into the combustion chamber to cool down the gases and cause unequal expansion and contraction of the tubes and boiler sheets, with the consequent deterioration of the same.

From data covering a period of two months' use of coal and two months' use of oil at the Houston plant, the following results were obtained:

The number of kilowatt-hours produced at the switchboard from 1 ton of Montreal "mine-run" coal, as compared with the number of kilowatt-hours produced from 1 barrel of Beaumont crude oil showed that 1 ton of coal was equal to 3.60 barrels of oil.

A number of tests were also made to determine the relative efficiencies of several forms of burners. Of course, in a paper of this kind, I am not at liberty to disclose the names of the burners, but will designate them by numbers. Efficiencies were taken in gallons of oil consumed per kilowatt-hour output at the switchboard. This method is in some respects not an ideal one, since it takes into consideration the efficiencies of the steam and electrical machinery. The conditions governing the test were, however, as nearly as possible the same in all tests, i. e., with the same condition of boilers as to cleanliness and the same load on the engines and generators, the tests all covering the same length of time.

The efficiencies obtained were as follows:

Burner No. 1.....	0.713 gallon per kilowatt-hour
Burner No. 2.....	0.667 gallon per kilowatt-hour
Burner No. 3.....	0.606 gallon per kilowatt-hour
Burner No. 4.....	0.575 gallon per kilowatt-hour

It will be seen from this that burner No. 2 effected a saving of 6.4 per cent over No. 1, No. 3 a saving of 15 per cent over No. 1, and No. 4 a saving of 19.3 per cent over No. 1, showing that a great deal depends upon the construction of the burner.

The high efficiency of No. 4 burner is due, I believe, to a device in the burner whereby the oil and steam are very intimately mixed, and also to the fact that highly superheated steam is employed to atomize the oil, thus bringing the mixture up to a very high temperature. A very uniform "gas flame" is produced, and the nozzle of the burner is so proportioned that the flame completely fills the firebox. Our experience has also shown that a great deal depends upon the construction of the firebox. Of course, a construction that is suitable for one class of boilers would not suit another class. I believe that in installing a fuel oil equipment various arrangements of firebox construction and burners should be tried and the arrangement best suited to the requirements determined by experience. Where the grate bars are arranged for burning coal are left in place and covered over with a layer of fire-brick, the furnace can be adapted for the use of coal again in a few minutes' time, in case the supply of oil runs out, or in case of any serious accident to the fuel oil burning system. By using this construction the air is also heated in passing through the hot bricks, and the temperature of the gases is not cooled down. The necessary amount of air for complete combustion can be regulated by opening or closing the ash-pit doors.

When the fuel oil from the Beaumont fields first began to be used for steam purposes much was said about the destructive effects of the large quantities of sulphur in the oil, and it was predicted that this would in a short time injure and ruin the tubes and sheets of the boilers. Time has proven that there is nothing to fear on

this score. The percentage of sulphur in Beaumont oil is placed by analyses of various persons from 1.33 per cent (Dr. Redwood, *Beaumont Oil Review*, March 20, 1902) to 2.04 per cent (analysis of A. W. Smott, chief chemist of Ledoux & Co.). After using Beaumont oil for a period of over ten months I have been unable to detect any injurious effects on our boilers, due to the presence of sulphur.

Knowing or assuming the relative values of coal and oil, and knowing the cost of coal and oil delivered at the plant, the saving to be effected by the use of oil can be calculated. The saving found at the plant of the Houston Lighting & Power Company was about 63 per cent. Oil fuel requires less labor in handling, as the oil is usually unloaded from the tank cars by gravity and fed to the burners automatically. This does away with the labor of unloading the coal and the labor of coal passers.

The deterioration of the furnaces is less with oil than with coal, and as, with proper firing, there is no smoke or soot with the use of oil, the tubes of the boilers are cleaner, thus allowing more heat to be taken up by the water.

The maintenance charges with a fuel oil equipment are less than with coal.

DISCUSSION BY F. C. BITGOOD*

The use in this territory of crude oil as fuel began in April, 1901, and our observations cover the periods since then. At the outset our inspectors received special instructions concerning the fuel, and were cautioned to use special vigilance, to the end that its effects on the boilers under our charge might be ascertained as quickly as possible. Thus far the closest scrutiny has failed to reveal any deleterious effects where proper care was exercised in installing the oil-burning apparatus and in its operation afterward. In some instances tubes have been bent and shell plates overheated by reason of undue concentration of the oil flame on certain exposed portions of the boilers, but these troubles have uniformly disappeared when the faulty conditions were rectified. Some apprehension was felt at first that the amount of sulphur contained in the crude oil might be sufficient to cause more rapid deterioration from pitting and corrosion than had been experienced with coal. This fear has so far proved groundless, no extraordinary pitting of tubes and shells having been noted since the introduction of oil as fuel. This may be accounted for by the fact that the amount of sulphur liberated per thousand heat units is less with oil than with coal.

The wear and tear upon the boiler structure is probably less with oil than with coal. Much of this wear and tear with coal is due to strains produced by the sudden and frequent inrushes of air against the hot plates and heads, while furnace doors are opened for firing, resulting often in leakage at seams and tube ends, and small fractures of the boiler plates. These are almost entirely avoided by using oil for fuel. The doors are never opened, and the temperature thus remains practically even; consequently there are no injurious contractions. In some cases where constant trouble had been experienced with coal from the causes just mentioned there was a marked improvement when oil was introduced. The annoying leakages and fractures ceased, thereby lessening repair bills and the frequency of stoppages.

It will be seen from the foregoing that this company's experience with oil would indicate it to be an ideal fuel if used with proper precaution. There should always be a sufficient number and a proper arrangement of burners to secure thorough diffusion of the heat liberated over the entire fire surfaces of the boilers. Each plant is a separate proposition, and should be treated as such. The placing of apparatus in position is in itself a simple matter, but making it fulfil all the requirements of safety and economy is quite another thing, and one requiring expert knowledge and care. Once an installation is properly made, its operation is quite simple. Probably the association will appreciate a word of warning on one or two points in particular. Danger arises from haste in raising steam from cold or cool boilers. Oil is rich in heat units, and a large amount can be burned in the furnace in a short space of time. These make it easy to get up steam quickly. It is no more work for the firemen, so nobody complains except the boiler, which cannot make itself understood until it is too late, when it is likely to show the result of frequent abuse, which has sapped its vital powers. Another danger lies in forcing the boilers too much. Oil lends itself readily to forcing the boilers beyond their rated capacity, and there are frequent temptations to do this. Much caution will have to be exercised in these respects, if undue wear and tear is to be avoided, to say nothing of the liability to dangerous explosions.

* Abstract of paper read before the Southwestern Gas, Electric and Street Railway Association, at San Antonio, Tex., April 19, 1902.

* Mr. Bitgood is chief inspector of the Hartford Steam Boiler Inspector and Insurance Company, and his contribution is in the nature of an official report upon the experiences and records of his company.

* Street Railway Management in Texas *

BY T. H. STUART

The proper management of a street railway has been the subject of much thought, and many and varied are the different methods employed. In the Southwestern territory, and within the bounds of our association, conditions prevail which make the management of these properties very similar in many respects, so that we can, with a great degree of satisfaction, pool our experiences and knowledge. We have about the same class of labor to handle, the same character of maintenance of track, trolley and train, and the same, or practically the same, good public—there never was a bad public. God bless the public! If we didn't have the public, we wouldn't have the track, nor the trolley, nor the train.

In the first place, the street railway is a necessity to a growing town, just as the town is a necessity to the street railway company. The public is generally appreciative, and the street car manager must learn what they want and what they need, and train them accordingly. When a new line is opened up through a thickly settled district, the people for some time continue to walk, but disagreeable weather or haste will induce a person to ride once. The next time less incentive is required, especially if the cars run strictly on schedule, give prompt service and he has to pay but 5 cents to get to his destination. So the habit grows, and soon it becomes the rule to ride, when before it was the exception. A most important feature in street railway management is to keep the public posted as to when to expect a car. This should be done in practice and not in theory. Posting a printed schedule as to when your cars may be expected at a certain place and then having them there at that time are entirely different propositions, and the man who follows the practical side is the one who will succeed. This is a part of the education. As a rule, people are a restless set of beings, and when they have waited for the car and it does not appear on schedule time their energies get to working and they decide that it is time to walk. And as they walk they fall in with acquaintances and the topic of conversation all the way down town is the bad service furnished by the street car company. As a result the poor manager gets himself talked about, his system ridiculed, and, in the end, he will carry passengers only on rainy days and to the circus.

Besides the methods referred to there are other ways which I might call artificial methods of inducing the people to ride. The people must be amused, and the wise street car man will take advantage of this weakness in man's nature, and build for him at some point on his line a place of recreation and amusement. It has been conclusively proved that a pleasure resort operated in conjunction with a street railway will prove to be a benefit both to the patron and the projector.

The character of amusement depends, of course, entirely on the conditions governing the street railway, but whether it is afforded in the way of a park, lake, theater or what not, it should be conducted in a clean, wholesome, respectable and attractive manner.

I might add here that another important factor in inducing the people to ride is a liberal transfer system, giving the people valuable return for their money and landing them safely at their destination for one fare of 5 cents. A good transfer system will undoubtedly greatly increase the travel, and, if properly guarded from fraud, will pay the manager who adopts it.

The success and reputation of a road depend to a large extent on the treatment received at the hands of the motorman, or the motorman-conductor, as few pioneer roads can afford the luxury of having both. Motormen and conductors should possess civility, honesty, good judgment and tact. While the manager should of course lay down rules for the government of his men with certain instructions to be followed, considerable latitude should be left to the motorman or conductor in the handling of exceptional cases with which he is bound to be confronted. Many a costly error has been made owing to the poor judgment of the motorman coupled with the stringent and ironclad rules with which he is often burdened.

A manager should always treat his men with respect; if they are not worthy of it he should not keep them.

In the selection of men for street car service it is not always best to rely altogether upon the application blank. The usual questions, such as age, weight, nationality, single or married, etc., are all good questions, and necessary; but it is well for the manager, while the applicant is filling out the blank, to be sizing up his head to see if he is capable of taking care of the people, and if he has the proper mental control to dismiss petty annoyances that continually fall to the lot of the motorman.

It is a question worthy of discussion and consideration whether

a motorman or conductor should be allowed or expected to have a full knowledge technically of electricity in order that he may make certain repairs on his cars in cases of breakdowns on his run. It is my opinion a man cannot have too much knowledge, but it is my firm belief that if he possesses enough knowledge of electricity to entrust him with the making of repairs, he is best fitted for the line or car house or power house. A motorman, after long service, may become proficient in any or all branches of the business, but the prime and especial duty for him to learn is to start and stop his car; especially to stop it. If a motorman does this successfully and keeps clear of all vehicles and pedestrians, and keeps his time, he has his hands pretty well filled, and if he does this from day to day and from year to year without coming in dangerous conflict with pedestrians or vehicles he has performed a good service, and is to be commended.

The Richmond Consolidation

The consolidation of the street railway and electric light companies of Richmond, Va., which was effected a few days ago, is of more than passing interest, for, as is well known, it was at Richmond that much important pioneer electric railway work was done. Moreover, the material used in constructing the original horse car line in that city in 1859 played a small but not unimportant part in the civil war. Richmond was the first Virginia city to operate a street railway before the war. It was in 1855 that the residents of the city first realized that the unsatisfactory bus no longer met the traffic demands, and plans were made for the system that was placed in operation in 1859. This system was operated successfully until the outbreak of the civil war, when the road was dismantled and the rails and other material were used to build gunboats for the Confederates. Of course, if traffic demanded a street railway in Richmond previous to the war, one certainly was demanded after its close, and in December, 1865, an ordinance for the rebuilding of the road was passed. The new road was completed and placed in operation in 1866; the system was extended to meet the demands, but nothing of great importance occurred until 1887. It was in March of that year that Frank J. Sprague contracted for the electric equipment of the Union Passenger Railway, and the magnitude of the work undertaken by Mr. Sprague attracted much attention. It was the first attempt at electric equipment on a large scale, and the work was only accomplished after many trials and disappointments. On Feb. 8, 1888, less than a year after Mr. Sprague had taken the contract, the line was placed in successful operation, which laid the foundation of the several systems that have just been consolidated.

In 1890 the Richmond Railway & Electric Company was organized as a consolidation of all the street railway and light companies in the city, and this company was reorganized and succeeded a few years later by the Richmond Passenger & Power Company. This company, however, did not remain in undisputed control of the street railway and lighting properties for any considerable time, for in 1894 the Richmond Traction Company was organized. The formation of the other companies included in the consolidation followed these at short intervals, the last of the companies being organized not many months ago. The consolidation of the street railways of Richmond, Manchester and Petersburg, also the electric light and power companies of the several cities mentioned and the water rights of the James and Appomattox Rivers, are expected to produce economies and benefits that will be shared alike by the companies and the residents of the territory in which the companies operate.

New Features for Kansas City Park

The American Construction Company, of New York, is building a centrifugal railway in Electric Park, Kansas City, Mo. It is the same one that was used at the Pan-American Exposition at Buffalo last year, except that it will be somewhat longer. The total ride will be 1500 ft. long and will be made in less than fifty seconds. The loop is 30 ft. high, and it is said that it requires less than two seconds to complete the circle, as the car enters the loop at a speed of 80 miles per hour and leaves it at 70 miles per hour. There are two tracks running parallel, and it is said they have exciting races between the patrons. Electric Park is now the most attractive park in the city at night. Three thousand two hundred 16-cp incandescent lamps and thirty arc lamps are used for illumination. It contains only fifteen acres, and has an immense beer garden, a theater, an electric fountain and many other smaller attractions. On special days last season the park was so full that the gates had to be closed against further admissions.

* Abstract of paper read before the Southwestern Gas, Electric and Street Railway Association, San Antonio, Texas, April 18-21, 1902.

Electric Freight Locomotive

The accompanying cut shows a new electric locomotive, designed and built for service on the Hudson Valley Railway, between Albany and Warrensburg, N. Y., by J. M. Jones' Sons, of West Troy, N. Y. This locomotive is intended for hauling regular steam road freight cars between the points mentioned and through a country that is filled with mills and factories.

The dimensions of this locomotive, mounted on trucks, are as follows: Height from rail to top of body, 12 ft. 11½ ins.; extreme height over trolley span, 13 ft. 6 ins.; length over end sills, 25 ft.; length over buffers, 27 ft.; extreme width, 8 ft. 3 ins. The builders adopted the heaviest possible construction for the purpose intended, the bottom being especially strong. The side sills are of extra large oak timbers, while the intermediate sills and timbers are reinforced with steel plates, the corners being well braced and the whole construction designed to withstand heavy shocks. The superstructure is made of plate steel strongly riveted together, both cab and doors being composed of wood.

The body is mounted on Taylor double trucks, which are made extra strong because of the character of the service for which the locomotive is intended. Including the trucks the weight of the

John E. Kraft, city electrician, San Antonio, Tex.
 J. J. King, San Antonio Traction Company, San Antonio, Tex.
 Sam Hobson, Waco Electrical Supply & Construction Co., Waco, Tex.
 J. S. Lehmann, Columbia Lamp Company, St. Louis, Mo.
 John J. Sheehan, H. Muller Manufacturing Company, Decatur, Ill.
 K. H. Lee, Jr., Sawyer-Man Electric Company, Dallas, Tex.
 F. W. Flint, E. H. Kellogg Company, New York, N. Y.
 W. J. Grady, Faries Manufacturing Company, Decatur, Ill.
 H. E. Hobson, Waco Electric Supply Construction Company, Waco, Tex.
 C. H. Buck, Detroit Stove Company, Chicago, Ill.
 George D. Rosenthal, General Electric Company, St. Louis, Mo.
 Fred A. Jones, electrical engineer, Houston, Tex.
 F. G. Vaughn, General Electric Company, Schenectady, N. Y.
 T. C. Brown, San Antonio Traction Company, San Antonio, Tex.

During the meeting a number of discussions of topics pertaining to the equipment and maintenance of electric roads were participated in by prominent street railway men. Papers were read upon "The Selection of Street Railway Motors," "Management of Street Railways in Texas," "Injury and Damage Cases," "Fuel Oil." Abstracts of several of these papers appear elsewhere in this issue. At the business meeting the following officers were elected for the ensuing year:

President, E. H. Jenkins, San Antonio, Tex.; first vice-president,



ELECTRIC FREIGHT LOCOMOTIVE FOR HUDSON VALLEY RAILWAY

locomotive is about 30,000 lbs., and with the motors and air brake equipment aggregates 50,000 lbs. Provision has been made for placing pig-iron inside the superstructure when necessary to give the requisite weight for traction purposes. The locomotive will be equipped with four 100-hp motors, Westinghouse air brakes and Trojan automatic couplers. A track sanding device, operated by compressed air, will be another feature.

C. F. Yeager, La Rede, Tex.; second vice-president, E. Dysterud, Monterey, Mex.; third vice-president, A. E. Judge, Tyler, Tex.; directors, Thomas D. Miller, Dallas, Tex.; T. H. Stewart, Waco, Tex.; S. A. Spencer, Jennings, La.; H. T. Edgar, El Paso, Tex.; W. A. Guthrie, San Antonio, Tex.; J. R. Ward, Beaumont, Tex. Thomas D. Miller, of Dallas, was elected treasurer, and H. A. Evans, of San Antonio, secretary.

Dallas, Tex., was selected as the place for the next meeting.

Meeting of Texas Street Railway Men

The fourth annual convention of the Southwestern Gas, Electric & Street Railway Association was held in San Antonio, Tex., on April 18, and proved a very interesting meeting. Following is a list of the street railway and supply men in attendance:

H. T. Edgar, El Paso Street Railway Company, El Paso, Tex.
 Wm. Brooke, Electric Appliance Company, Chicago, Ill.
 E. Kuhlman, Kuhlman Electric Company, Elkhart, Ind.
 C. W. Hobson, Waco Electric Supply Company, Waco, Tex.
 V. W. Raggio, Electric Appliance Company, St. Louis, Mo.
 F. E. Scovill, Austin Rapid Transit Railway Company, Austin, Tex.
 E. D. Kelley, Hillsboro Investment Company, Hillsboro, Tex.
 Harry L. Monroe, General Electric Company, Dallas, Tex.
 T. H. Stuart, Citizens' Railway Company, Waco, Tex.
 Harry H. Gerhard, C. A. Paint Company, Austin, Tex.
 E. J. Pietzeker, American Steel & Wire Company, Chicago, Ill.
 J. E. Johnson, Westinghouse Electric Company, Dallas, Tex.
 Harry E. Dyer, Western Electric Company, St. Louis, Mo.
 E. W. Davis, Southwestern Elec. Eng. & Con. Company, Dallas, Tex.
 F. C. R. Spence, Stanley Instrument Company, New York, N. Y.
 O. O. Woodman, San Antonio Gas & Elec. Company, San Antonio, Tex.

Improvements in the Works of the St. Louis Car Company

The St. Louis Car Company is making extensive additions to its already large shops at St. Louis, Mo. The increased facilities include a large building 150 ft. x 563 ft., which will have a capacity for one hundred additional cars, and which is intended for use as an erecting shop. One section of this building will have a second story approximately 60 ft. x 560 ft., which will be used exclusively by the curtain and seat department, of which the St. Louis Car Company is justly proud. The company is at present greatly handicapped by lack of space in its manufactory, and it is rushing work on these extensions in every possible manner. It is confidently hoped that with this addition the output will be increased by 1000 cars per year.

Underground Conduits and Ducts

C. J. Harrington, New York, announces that he has been appointed selling agent for the Scranton Fire Brick & Conduit Company, with factories at Scranton, Pa., and Ithaca, N. Y. This

company has the facilities for turning out immense quantities of conduit and duct for street railway, electric lighting and telephone service. This product has met with great favor among users, the material composing the duct being of the very best, and prices being sufficiently low to meet the strongest competition. It is made in any style, size, etc., of conduit that may be required, and C. J. Harrington is in a position to furnish large quantities of it on short notice. He intends to push this branch of his machinery and general electrical supply business very vigorously.

Railroad Track Tools

As electric railways approach closer to steam roads in the matter of track, especially on interurban lines, it is of interest to note some of the apparatus which have been found successful in steam road work. Several very useful appliances for the track gang are made by Pettibone, Mulliken & Company, of Chicago, who have made the appliances for some time for steam roads, and are now entering the electric railway field with them.

In Fig. 1 is shown a roller rail bender which, it is claimed, does its work without the slightest injury to the rail, causing no kinks or breakages of the metal at any point. The bender is placed over the rail, as shown in Fig. 1, and the nut on the center screw is turned until the machine is set for the desired curve. A socket wrench is then put on the shaft of the center roller and the long double lever shown is put over the socket wrench. Then, with one or more men at each end of this lever to turn the center lever, the machine moves forward on the rail, bending it as it moves. Of course, it can be used as a rail straightener as well as a bender. The number of men necessary to do the work is governed by the weight of the rail and the curvature. The bender is made of the best quality of wrought iron and steel, and all the working parts are of steel. It has five steel rollers, and is strong enough to bend the heaviest rail in use. It is useful not only in producing smooth, even curves in construction work, but truing up old and imperfectly bent curves. This roller rail bender is also made with a horse-power attachment instead of the hand lever.

Fig. 2 shows what is called the Union track drill, which, on ac-

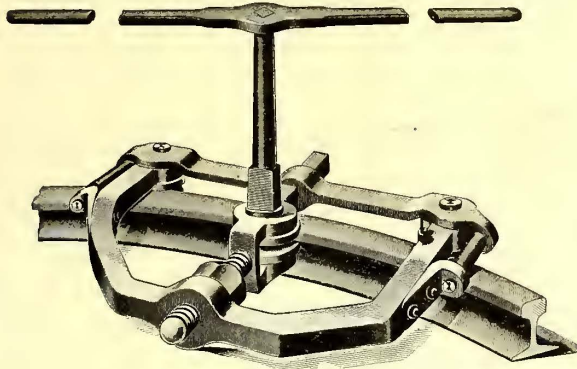


FIG. 1.—ROLLER RAIL BENDER

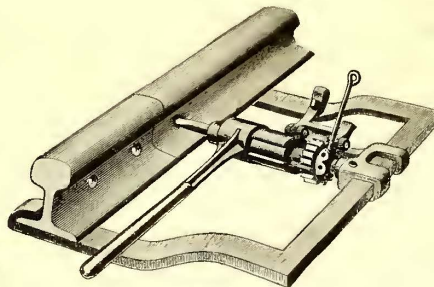


FIG. 3.—DRILL TO HOOK UNDER TRACK

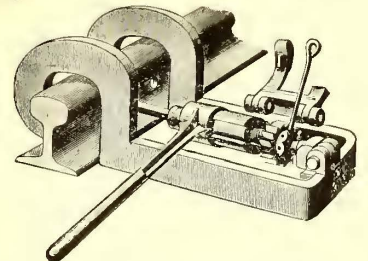


FIG. 2.—UNION TRACK DRILL

count of its peculiar construction, will fit any weight of T-rail from 40 lbs. to 80 lbs. The drill frame is made of wrought iron and simply hooks over the head of the rail. The ratchet, being enclosed in the handle, is perfectly protected from sand and dirt. The two dogs which operate the ratchet are so placed that they work together opposite each other, giving great power with the least friction. The automatic feed is so arranged that it acts positively and regularly without strain on any part, and without breaking bits, and enables one man to drill rails quickly and correctly. In case it becomes necessary to remove the drill from the track suddenly on account of approaching trains, the drill can be at once loosened by using a pick or track wrench as a pry under the feed drum. The drill will then at once be thrown out of center, so it can be taken off the track. A similar drill is made to hook under the rail to the flange of the base, and, as shown in Fig 3, can be left on the track without danger to passing trains.

Figs. 4 and 5 show the Jenne track jack for lifting track during the processes of ballasting, surfacing or for general repairs. It can also be used for other than track work. It has no cogs or ratchets to wear, or small parts to loose. It is easily repaired, and all working parts are very strong and simple in construction. It is made in three different sizes.

The announcement is made that Thomas Dolan has resigned as a director of the Union Traction Company of Philadelphia.

The Everett-Moore Situation

The deal for the purchase of the Everett-Moore holdings in the Detroit United Railway by an Eastern syndicate has been declared off, the option having expired. It is understood that an effort was made to secure a lease in perpetuity, but the bankers committee was unwilling to recommend this action to the stockholders, and would not enter into the negotiations. Other bidders are in the field, and it is understood that the Cincinnati syndicate is still after the property.

Reports in New York indicate that the negotiations with the firm of J. & W. Seligman for the purchase of the Everett-Moore interests in the Toledo Railways & Light Company are also likely to be declared off. According to the latest report these people

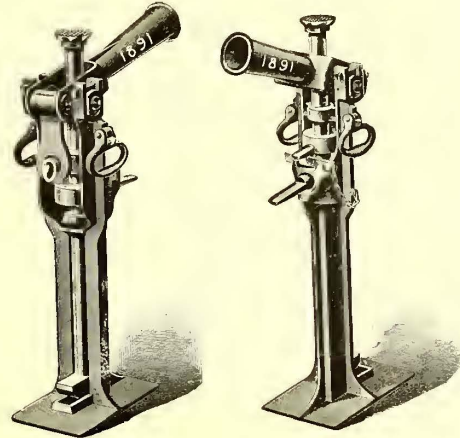


FIG. 4
FIG. 5
"JENNE" TRACK JACK

are endeavoring to secure the property for \$20 per share, while the Cleveland people want in the neighborhood of \$26.

There has also been a hitch in the transaction whereby Cleveland people were to take over the holdings in the Northern Ohio

Traction Company. The syndicate headed by Horace E. Andrews has made a thorough inspection of the property, but the matter of purchase is still unsettled.

Under an arrangement with the Toledo & Monroe Railway, the Detroit & Toledo Shore Line is again operating cars from Toledo to Detroit. The members of the syndicate are confident that the earnings of the road will prove so satisfactory within a very short time that it will be possible to sell the bonds and properly finance the property.

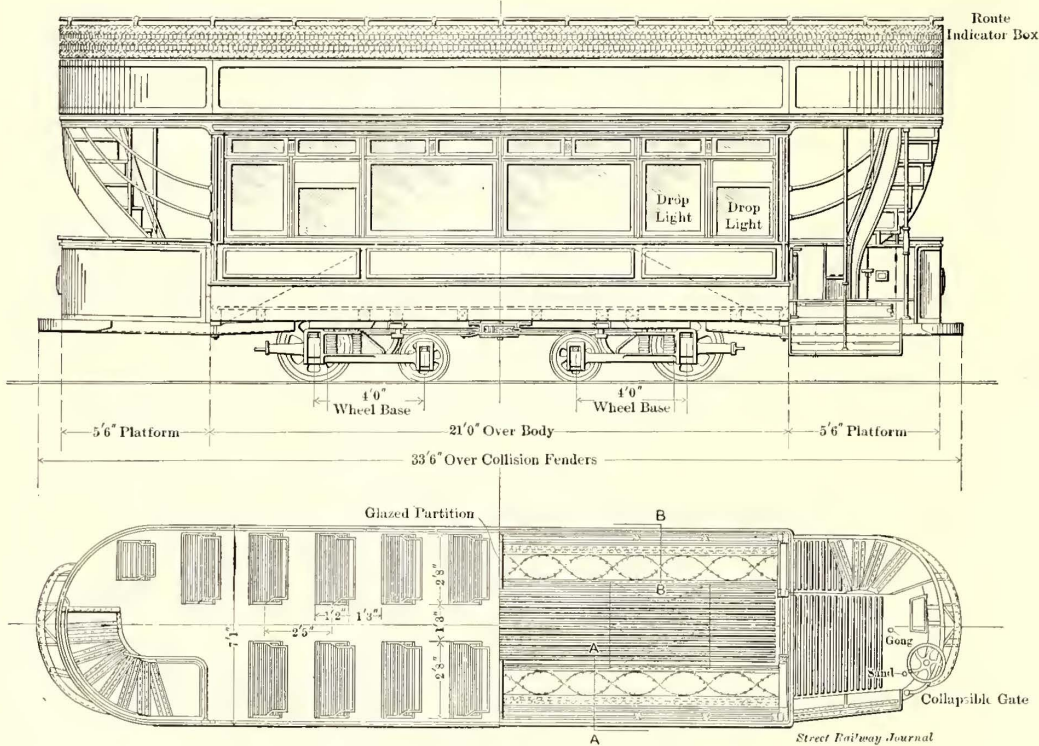
Attempt to Unionize Chicago Roads

For some time secret preparations have been going on to form a union of street railway employees in Chicago, and last week matters were so far along that open meetings were held, the attendance, however, being small. One meeting on the South Side was reported in the daily papers as having an attendance of 619, this being the largest. The North Side turned out 200 men, the West Side seventy-two men, and the elevated railways 150. W. D. Mahon, president of the Amalgamated Association of Street Railway Employees, was on hand. Invitations were issued to the officers of the Chicago companies to be present at the meetings May 2. The leaders of the movement repudiate the suggestion that the organization is for the purposes of a strike.

London County Council Cars

The first contract for rolling stock upon the London County Council Railway lines has been awarded to Dick, Kerr & Co., comprising 100 cars. The highways committee, which has had the matter in charge, received twenty-three bids from nine concerns, and the prices for the equipment, it is reported, ranged from \$325,000 to \$400,000. It was further announced that the bids received from German concerns were the highest submitted.

The accompanying cut illustrates the principal features of the car adopted for this service, which, it is stated, will closely resemble the Preston pattern, which has been supplied by the same builders for many of the railway systems of the country. These are



DETAILS OF LONDON COUNTY COUNCIL CARS

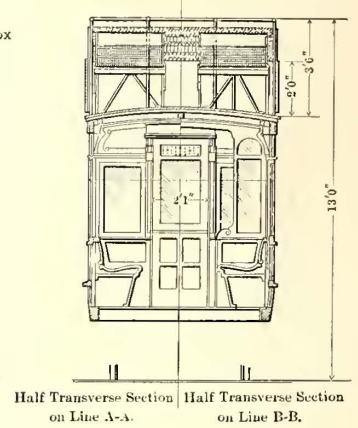
double-deck cars, and the principal claim made in their behalf is that they afford greater space in the interior and slightly increase the seating capacity on the outside. The reversed staircase, which was first employed in this type, has become popular on other lines where it has been adopted. The seating capacity of the new cars will be 66 passengers, 28 inside and 38 outside, and the total length over all will be 33 ft. 6 ins. The frame of the car will be so arranged as to accommodate on each side two large fixed windows in the center, and four end windows arranged to lower in the manner shown in the drawing. Above these there will be a line of narrow, ornamental pivoted sashes to allow for ventilation. At each end of the car will be route indicator boxes provided with revolving linen screens. A new feature in the interior of the car will be a glazed partition, shown in the illustration. The interior woodwork of the cars will be made up of quartered oak, and the end doors will slide in the usual way and will be fitted with the necessary handles, catches, etc. The roof seats, which will carry 38 passengers, will be of the garden type, with angle-iron legs.

It will be of interest to American street railway men to know that the type of trucks selected for the equipment will be the No. 2 maximum traction trucks, made by the J. G. Brill Company, of Philadelphia, and that they will be of the same general character as those operated by the Metropolitan Street Railway Company, of New York. The only difference between the trucks used by the Metropolitan Company and the London County Council Tramways is that the latter will have wrought forged side frames. As is well known the Brill Company has devoted much attention to perfecting this style of trucks, and the London engineers seem to have appreciated the efforts that have been made in this direction. It is believed that they were guided in making their selection largely by the fact that the Brill equipment contains this feature. The car bodies will be made at the Electric Railway & Tramway Carriage Works, the plows by J. G. White & Co., of New York, and the motors by the English Electric Manufacturing Company, of Preston. The electrical equipments will be similar to those usually supplied by Dick, Kerr & Co. The cars will be fitted with series-parallel controllers, and there will be the usual equipment of emergency switches, lightning arresters and hand brake.

Steam Equipment for Turbine Plant

The Cleveland & Southern Railway Company has closed contracts for boilers which are a departure from ordinary electric railway practice. The object of the installation is to obtain a very large horse-power in a small space, and to secure the economy resultant from the use of a high degree of superheat with Westinghouse steam turbines. The boilers are to be used in the Elyria station of the Cleveland, Elyria & Western Railway, of which system the Cleveland & Southern is a part. The steam turbine outfit to be installed in this station was described in the STREET RAILWAY JOURNAL of March 22.

Contracts for the boilers have been placed with the Heine Boiler



Company, of St. Louis. They are to be in three sets of 500 hp. each, based on 10 sq. ft. of heating surface per horse-power. Instead of using one unit of 500-hp capacity, W. H. Abbott, the Cleveland & Southern Company's engineer, will divide the boilers into two narrow high units, thus reducing the size of the header sets and all other parts. The boilers are to be bricked together, so that they

shall have the appearance of a single unit, although each drum will have a separate and entirely independent header and set of tubes.

The superheaters are guaranteed to superheat 150 degs. F. They are to be of the Hering type. The superheaters are so arranged that tubes can be replaced without getting into the boilers. The gases pass through the boiler, and then through the superheater. Suitable dampers are arranged so that any portion of the whole amount of gases may either be passed through the superheaters or directly under the drums to the stack. The makers guarantee that the temperature of the exhaust gases, when running at full load, shall not be greater than 500 degs. F. The steam piping will be so arranged that either saturated steam or superheated steam may be used. When the superheater is not in service the damper can be so placed that no gases go through it; hence flooding it is not necessary. The boilers are equipped with automatic valves, by the use of which the rush of steam from the other boilers is checked if a tube blows out. The boilers are to be hung from I-beams wholly independent of the brickwork. The contract includes the erection of the iron breeching and flue running the whole length of the new portion of the station, emptying at one end into the present stack, and at the other into a supplementary stack. The boilers are to be supplied with special fire-brick arches, giving long furnaces, in which it is hoped to use some form of powdered coal stoker.

Varnish for Electric Cars

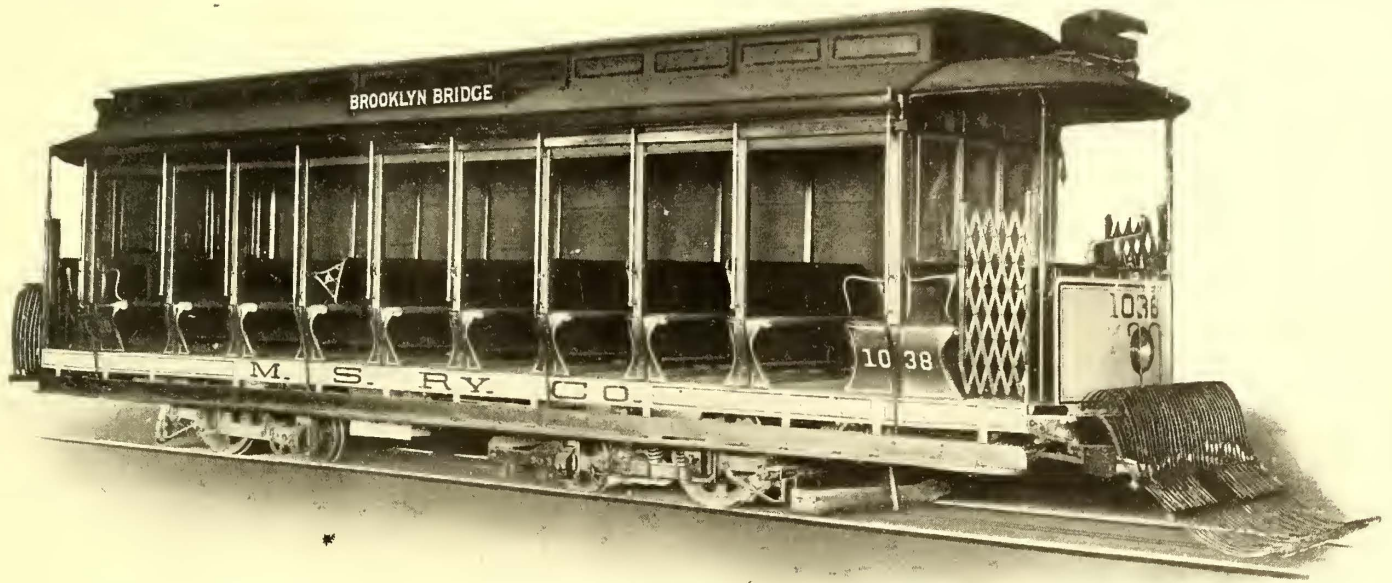
The delicate tints and decorations which are often found on the rolling stock of street railways are seriously injured by ordinary dark-colored varnishes. To overcome this effect the firm of John W. Masury & Son is placing on the market a line of pale carriage varnishes in which is corrected the defects so generally found in varnish supplied for this work. This concern being itself a manufacturer of fine colors, realizing thoroughly the requirements, and the freedom and safety in working, easy-flowing qualities, brilliancy of luster and extreme paleness, has already made this varnish the friend of those who are connected with the painting of cars,

The Products of the Consolidated Car Fender Company

The Consolidated Car Fender Company, of Providence, R. I., has developed a line of standardized rolling stock equipments which is of great interest both to the operating and financial ends

ins. to 17 ins. above the track. This fender, therefore, when dropped, allows its front to rest directly on the surface of the street, and makes it impossible for any object to pass beneath it.

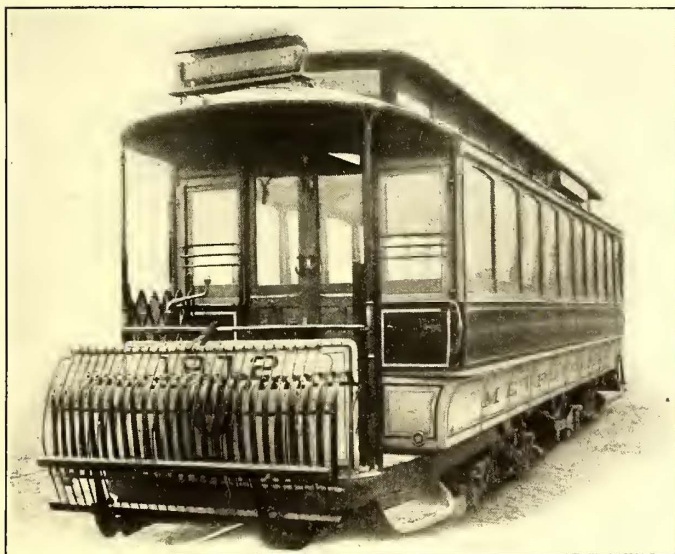
Model C is the latest type of fender for urban service. It can be used on either a high or a low car, and has been pronounced by competent railroad managers throughout this country and abroad



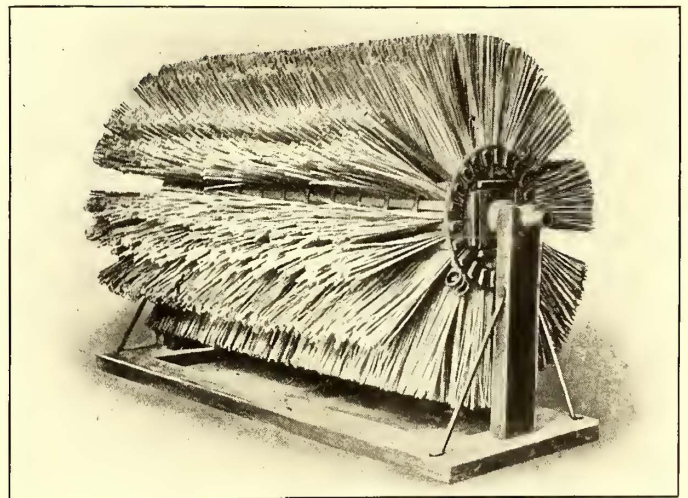
MODEL A—FENDER ON BOTH ENDS OF CAR

of the street railway organization. The mechanical details of these products are the result of extended experience in the manufacture of high-class apparatus, and they have been so thoroughly tested in actual practice that there seems little room for improvement. In developing its car fender the company has not attempted to make one which would satisfactorily adapt itself to all classes of service, but early realized that different types of rolling stock required different types of protective devices. Following out this

to be the highest type of life-saving device yet produced. In addition to being well adapted for picking up objects on the track, it has at each side a rubber-covered spring which prevents the displacement or throwing to one side of a body caught by the fender. Model D is a novelty in fenders, being the first practical fender for high-speed interurban roads. Any other device which has proved of use on this class of service, it is claimed, is little more than a simple cow-catcher, which merely pushes the obstruction to one side and makes no attempt to pick it up. The ordinary understanding at present of a fender is a device which



MODEL B—REAR END OF CAR



CAMPBELL SNOW BROOM

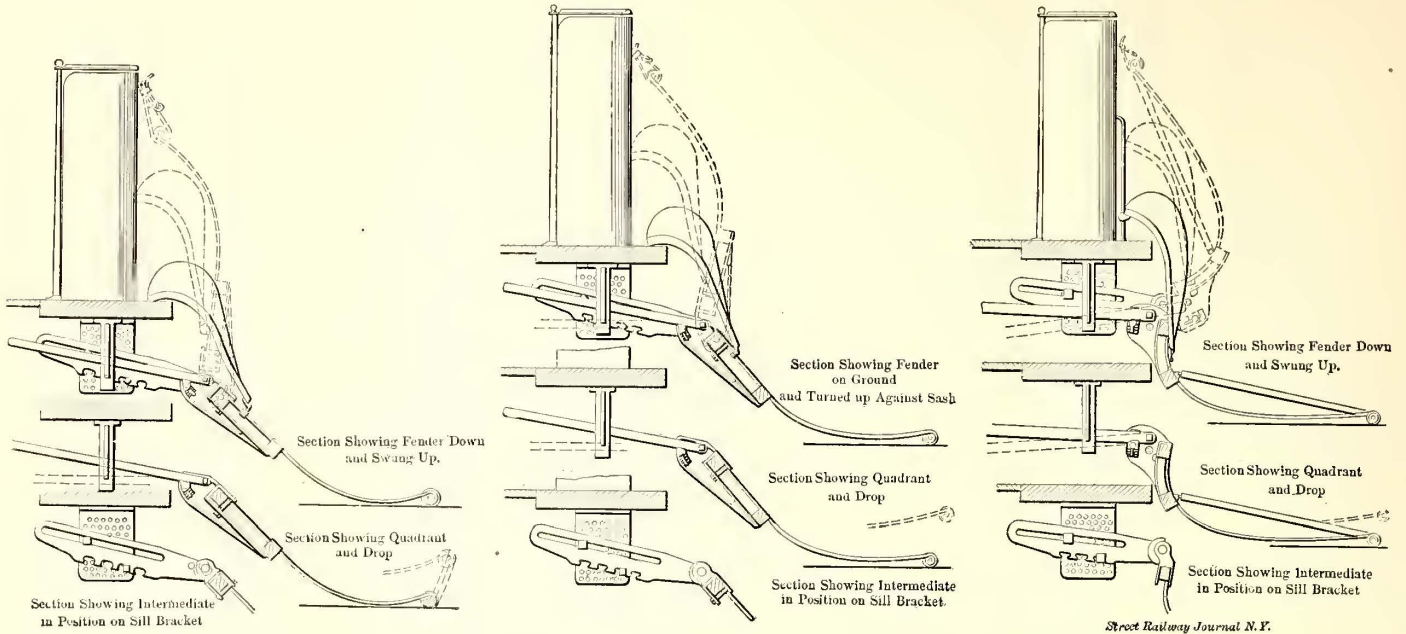
policy, therefore, it has produced four distinct fenders, the variations in the construction of which are well shown in the accompanying engravings. The first design, which is known as type A, is intended for use on a car whose sills are of medium height above the track. As will be noticed in the half-tone view of this fender there is an opening in the front between the two heavy cross bars, which allows of the introduction of a draw bar. The shape of this fender is such that if placed on a car which is lower than the ordinary types, the fender, upon being dropped, will run along the rods holding the rubber bushings at its forward extremity off the ground, and to meet this condition the form known as model B was devised. This can be used on low cars where the upper cross bar of the fender can be adjusted to a position from 15

will pick up an object met in transit and carry it safely until the car can be stopped. Model D is made especially for large suburban and interurban cars, and is large and strong enough to pick up a horse and carry it until the car comes to a standstill. It is the first fender to be built which will pick up the object struck when the car is running at a high rate of speed, and while its lines are similar to those of the ordinary types here described its construction is much stronger, although retaining, in a marked degree, the resilience which makes it possible to keep uninjured the object encountered.

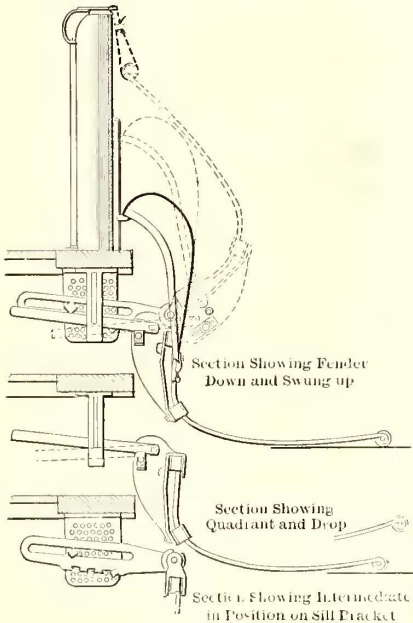
An important feature of all the fenders is the cushion against the dash. This is made of strips of strong spring metal, which completely prevents the object struck from coming into contact

with any hard corners or surface. All of the fenders are dropped by a pedal, actuated by the motorman's foot, it being considered

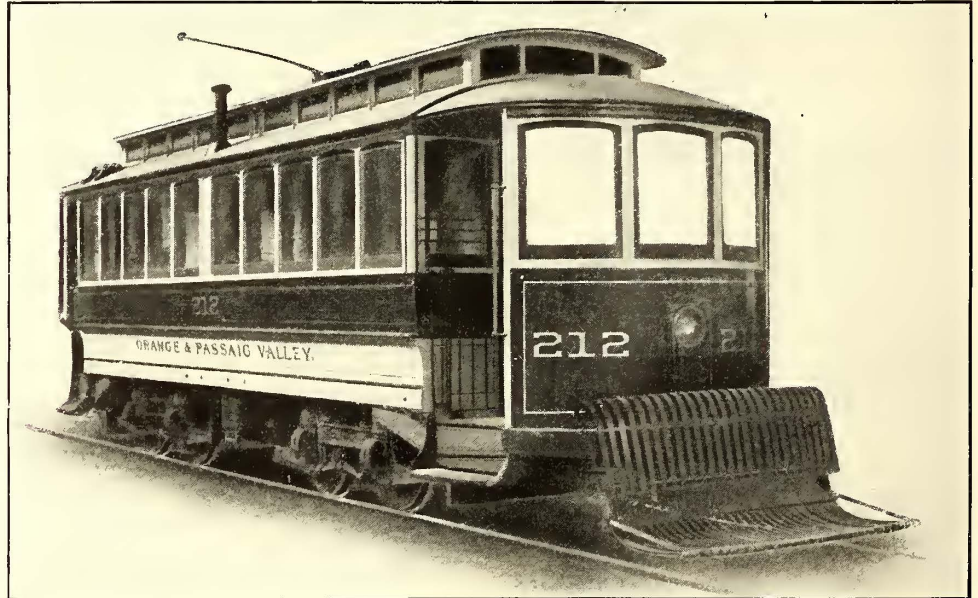
between the time it is struck and the time it should pick up the object on the track. It must necessarily take an appreciable



DETAILS OF FENDER MODELS A, B AND C



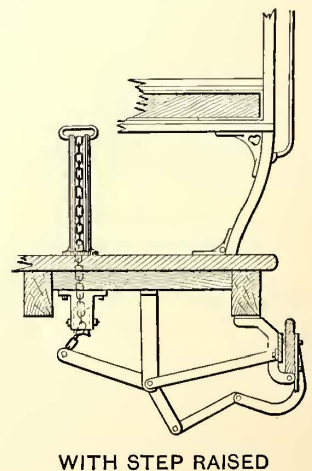
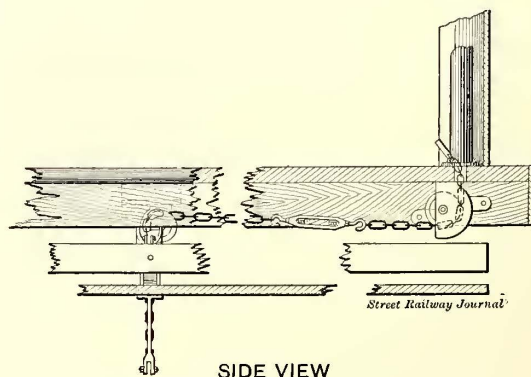
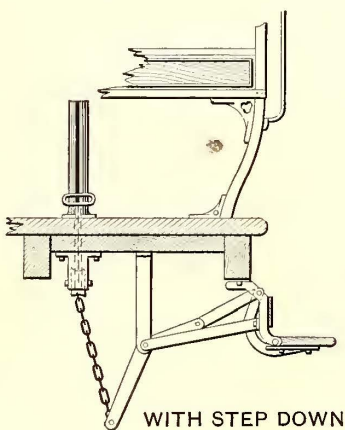
MODEL D



MODEL C—FRONT END OF CAR

by the company that any automatic device for dropping the fender must necessarily act too slowly to be effectual. In other words, the

fraction of a second for the fender to drop from its ordinary position of running to its emergency or service position, and a



DETAILS OF MILLEN CAR STEP LIFTER

speed of the car is under the most favorable conditions too great to enable any automatic device to force the fender to the track

simple calculation at different speeds will show how far the car will have gone beyond the point where the fender ought to have

been dropped after the fender has been "automatically" actuated.

Another device which is being manufactured by the Consolidated Car Fender Company is the Millen car step lifter, of which details are shown in the accompanying drawings. This step lifter is designed to provide an effectual means for lifting the running boards of open cars in the least possible time and with the least possible inconvenience to the conductor or motorman. It was designed by Thomas Millen, master mechanic of the Metropolitan Street Railway Company, of New York, to meet the peculiar conditions that exist in this city, but has met with favor on a number of other roads, where its numerous advantages have been appreciated by the managements. The workmanship of the Millen car step lifter, like that of the fenders, leaves nothing to be desired, and its simplicity of detail makes it almost indestructible and gives it a life greatly exceeding that of a car.

The Campbell sweeper broom illustrated herewith is a specialty which the Consolidated Car Fender Company is placing on the market with great success. This broom is made of the best quality rattan rods, so adjusted that they radiate from the central hub in the most efficient manner for sweeping, while at the same time there is no chance of breaking them off under the most severe service. When, however, the diameter of the broom has become too small by legitimate wear to use, a fresh supply of rattan can be placed in the broom with great ease. The best recommendation for a device of this kind, however, is its actual record in practice, and the number of roads which are now using them with the greatest satisfaction speak with the highest praise of its long life and convenience.

Street Railway Patents

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

UNITED STATES PATENTS ISSUED APRIL 22, 1902

697,962. Rail-Bond; J. M. Andersen, Boston, Mass. App. filed Feb. 10, 1902. A threaded plug enters a threaded hole in the end piece of the bond, and the threads being of unequal size distend the end piece and binds it in the rail.

697,986. Controller for Electric Vehicles; H. H. Cutler, Chicago, Ill. App. filed Aug. 24, 1899. A master solenoid serves to cut down the strength of the current flowing through a series of solenoids after the same have performed their work in raising the cores to alter the circuit.

697,987. Controller for Electric Vehicles; H. H. Cutler, Chicago, Ill. App. filed Aug. 24, 1899. The contacts which carry the heavy operating currents are controlled by a solenoid and the solenoids are controlled from the barrel of the controller.

698,076. Adjustable Trolley Supporter; T. E. Stucky, Indianapolis, Ind. App. filed Aug. 31, 1901. The trolley wheel makes contact with an overhead wire at the side, the wheel being supported on an arm, which is adjustable in a horizontal direction from the platform of the car.

698,099. Electrical Railroad Traction Apparatus; A. B. Boughan, Chicago, Ill. App. filed July 15, 1901. The slot is normally closed by wooden blocks jointed to each other and held in position by springs. The plow moves them aside, after which they automatically return.

698,124. Contact Apparatus for Electric Railways; A. Markle, Hazleton, Pa. App. filed Jan. 19, 1901. The contact-shoe is connected with the arm supporting it through springs and links.

698,127. Wire Coupling; G. L. Mitchell, Cincinnati, Ohio. App. filed June 12, 1901. The ends of the wires pass into a sleeve and through inclined washers therein, which grip and prevent the withdrawal of the wires.

698,155. Coupling for Wires; R. Thompson, New York, N. Y. App. filed Feb. 1, 1902. The ends of the wires overlap each other in separate passages in a sleeve and binding screws pass through the partition separating the passages and engage with both wires.

698,176. Side Bearing for Railway Cars; F. R. Cornwall, St. Louis, Mo. App. filed Feb. 28, 1902. Two upright brackets have endless grooves in them which receive the axles of a chain of rollers.

698,179. Rail-Bond; F. H. Daniels and H. W. Wyman, Worcester, Mass. App. filed Dec. 28, 1901. Strands of wire forming the body of the bond are secured in recesses in the end pieces by pressure.

698,180. Rail-Bond; J. T. Deviese, Crownhill, W. Va. App. filed Jan. 9, 1902. The ends of the bonds have hollow, conical split lugs, which are drawn through openings in the rail, and thus expanded therein to make good contact.

698,197. Adjustable Trolley Supporter; T. E. Stucky and E.

Hill, Indianapolis, Ind. App. filed July 8, 1901. A modification of No. 698,076.

698,239. Tramway Switch; J. H. V. Young and R. W. Barr, Akron, Ohio. App. filed May 29, 1901. Details.

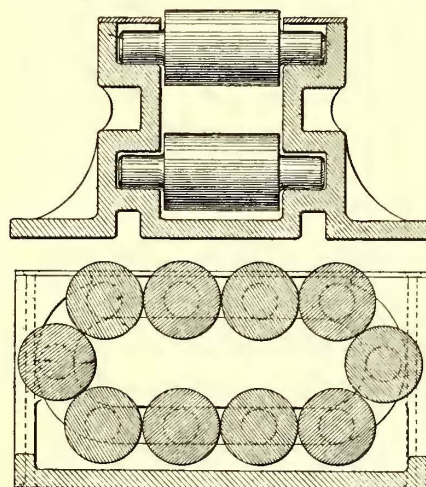
698,250. Rail-Bond; G. B. Blanchard, Tacoma, Wash. App. filed Jan. 13, 1902. A laminated bond in which the outer layer extends over and embraces the end.

698,251. Cross-Bond for Rails; G. B. Blanchard, Tacoma, Wash. App. filed Jan. 30, 1902. Flexible end pieces are attached to the cross-wire for connection to each rail.

698,259. Convertible Car; H. W. Covert, Waterford, N. Y. App. filed Jan. 7, 1902. The panels slide upward and enter pockets under the eaves of the roof, said pockets being formed outside of the vertical plane of the panel.

698,305. Guiding Device for Trolleys; J. A. Miller, Omaha, Neb. App. filed Oct. 30, 1901. Details.

698,310. Brake for Railway Cars; W. N. McInnis, Belvidere, N. J. App. filed Feb. 21, 1901. A pair of track shoes, each mounted on a toggle and both operated by a third toggle.



PATENT NO. 698,176

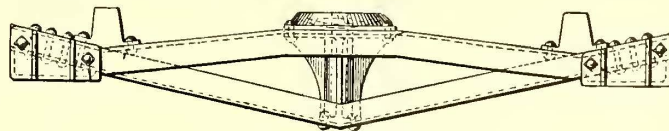
698,421. Brake-Shoe Mechanism; H. Tesseyman, Dayton, Ohio. App. filed Jan. 27, 1902. The brake head is rigidly attached to the brake hanger, and the shoe is of varying thickness throughout its length to compensate for the difference between the arcs in which its opposite ends travel in its movement toward the center of the wheel.

UNITED STATES PATENTS ISSUED APRIL 29, 1902

698,518. Adjustable Roof or Cover for Tramcars; F. Kennington, Leeds, England. App. filed Jan. 21, 1902. A slatted roof, like the cover of a roll-top desk, arranged to be moved into position when desired and ordinarily stored in panels at the side.

698,532. Trolley Controller; P. D. Milloy, Buffalo, N. Y. App. filed March 28, 1901. A guide pulley over which the rope is looped, is subject to considerable movement under the action of a spring when the latter is tripped by a quick rise of the arm. The movement draws the arm down.

698,548. Track Suspension Apparatus; G. A. Owen, Springfield, Mass. App. filed June 24, 1901. A track on which a conveyor runs, is supported by posts and a suspension cable, each connecting member having a turn-buckle by which the level of the track can be adjusted.



PATENT NO. 698,876

698,784. Car Brake; A. Balon, Elizabeth, N. J. App. filed Nov. 1, 1901. An eccentric works between two brake-shoes to throw them simultaneously against their respective wheels.

698,876. Bolster for Railway Cars; C. Vanderbilt, N. Y. App. filed Oct. 5, 1901. A bolster built up of ordinary commercial channel beams, united together at the middle by a filling piece, which also affords a socket for the king bolt, and united at the end by blocks shaped to receive and secure together the members.

698,915. Car Fender; M. F. Field, Boston, Mass. App. filed July 12, 1900. The latch which holds the fender in its elevated position, is released by manipulating the power controller.

698,928. Bolster; T. M. Gallagher, Old Orchard, Mo. App. filed Oct. 21, 1901. A bolster consisting of a top, side flanges, a central flange and spring seats uniting the bottom of the flanges at the ends of the bolster, all cast integral.

698,929. Body Bolster for Railway Cars; T. M. Gallagher, Old Orchard, Mo. App. filed Dec. 30, 1901. Consists of a top, outer vertical ribs and an intermediate rib depending from the top and side bearings uniting the ribs at their lower edges.

698,942. Signal Station; J. W. Harrison, Detroit, Mich. App. filed March 13, 1901. A signal is set to stop the car at a station by the weight of a would-be passenger on a tilting floor in the station building.

698,954. Car Fender; C. P. Hulst, Milwaukee, Wis. App. filed Nov. 21, 1901. Rollers on the front of the fender are rotated in a direction opposite to that of the wheels of the car, through gearing, so that they will have a tendency to lift an obstruction on to the fender.

698,978. Trolley Wheel; G. Loffi, Norwalk, Ohio. App. filed Sept. 7, 1901. The flanges and tread are assembled on a bushing and held by two nuts threaded on to the ends of the bushing.

698,979. Trolley Arm Head; F. J. Ludolph, Irondequoit, N. Y. App. filed Aug. 31, 1901. Constructed to confine the wheel to the wire.

698,982. Switch-Throwing Device; P. Luther, Allegheny, Pa. App. filed Nov. 5, 1901. A system of levers in the roadway adapted to be moved by a projection from the car to throw the switch.

698,986. Car Replacer; A. J. Michel, Scranton, Pa. App. filed Oct. 18, 1901. A block having certain flanges and grooves arranged to direct a derailed wheel on to the rail.

699,060. Rail-Bond; F. B. Badt and G. M. Willis, Chicago, Ill. App. filed Dec. 2, 1901. The end pieces have conical plugs on each side, adapted to be driven toward each other to spread the end in the cavity of the rail.

699,119. Automatic Signal for Electric Railways; C. H. Storm, Waterloo, Ia. App. filed Jan. 19, 1901. The trolley wheel operates switches at the ends of the blocks to change the color of the lights.

General Electric Stock Increased

Stockholders of the General Electric Company who represented 185,000 shares met at the company's main office at Schenectady May 5 and voted to increase the capital stock by \$19,757,800, to consist of 197,578 shares of common stock of the par value of \$100 each, so that the capital stock might be increased from \$25,242,200 to \$45,000,000, to consist of 450,000 shares of the par value of \$100 each. This new issue of stock will be distributed among the stockholders to restore the reduction made in 1898, if the board of directors approves this scheme. The common stock was reduced in 1898 from \$32,161,000 to \$18,276,000 and the preferred \$2,551,000. However, since that time the common stock has been increased to \$24,784,600 for the purpose of retiring \$5,298,000 in debentures and the \$2,551,000 preferred stock, of which all except a nominal amount was called in.

Westinghouse Acquisition

The Westinghouse Electric & Manufacturing Company has made an agreement with the Lorain Steel Company whereby the Westinghouse Company acquires the electrical equipment business of the Lorain Company, formerly carried on under the name of the Steel Motor Company, at Johnstown, Pa. The Lorain Company had devoted considerable attention to the development of surface and elevated railway motors, and had produced single, double and quadruple equipments for suburban and interurban service. The acquirement of this business by the Westinghouse Company will give that concern a very material advantage, in view of the fact that the Lorain Company had only recently secured several very large orders for this class of apparatus. The Westinghouse management announces that it will continue the works at Johnstown, and not only will the orders now on hand be filled from that factory but they will continue it and make this a special department of their business. The motors hereafter shipped from the Lorain factory may be supplied with nose spring suspension, covered by patents controlled by the Westinghouse and General Electric Companies.

ENGINEERING SOCIETIES

NEW YORK RAILROAD CLUB.—The last meeting of the season will be held on May 15, at 349 Madison Avenue, New York City, at 8 o'clock p. m. This meeting marks the thirtieth anniversary of the club's organization, and an illustrated address will be given by M. N. Forney on "Reminiscences of Half a Century."

Mr. Forney, who was one of the original members of the club, and is now one of its most active and popular ones, has just passed the fiftieth anniversary of his entrance into the mechanical field as a shop apprentice, and a most enjoyable evening is assured through his kindness in consenting to recount some of his experiences to his friends.

PERSONAL MENTION

MR. W. H. TUCKER, of Boston, Mass., has been elected treasurer of the Houston Electric Street Railway Company, of Houston, Tex. Mr. Tucker is a native of Georgia, but for some time he has been connected with the eastern company that now controls the Houston Electric Street Railway.

MR. GEO. F. CHAPMAN has resigned as general superintendent of the North Jersey Street Railway Company, of Newark, N. J., to become general manager of the United Railways of San Francisco, succeeding Mr. E. P. Vining, resigned. Mr. Chapman leaves the North Jersey Street Railway Company after having been connected with the company for the last twelve years. Eight years of this time he was superintendent of the Union County division, and for the last four years he has been general superintendent of the entire system controlling all lines in Newark, Elizabeth, Jersey City and the Oranges. Mr. Chapman, who is about thirty-eight years of age, was at one time connected with the street railways in Boston. Mr. Chapman will be succeeded in New Jersey by Mr. C. M. Shipman, formerly division superintendent of the Essex County division of the company, and Mr. James Smith, superintendent of the Union County division, has been transferred to the Essex County division. Mr. George D. Leacock, former assistant superintendent of the Koseville division, has been appointed superintendent of the Union County division. Mr. J. A. Campion, former assistant superintendent of the South Orange division, has been transferred to the Roseville division. Mr. James McDonough, former assistant superintendent of the Springfield Avenue division, has been transferred to the South Orange division, and Mr. W. B. Taylor has been appointed assistant superintendent of the Springfield Avenue division. All these changes will take effect Saturday, May 10.

MR. IRA A. McCORMACK has resigned his position as general manager of the Cleveland Electric Railway Company, of Cleveland, Ohio, and on May 15 will become assistant to Manager J. N. Franklin, of the Grand Central Station, of the New York Central Railroad in New York. Mr. McCormack, under Mr. Franklin, will have charge of the entire operation of the New York Central between the Grand Central Station and Mott Haven, and when it is considered that this is the part of the road for which plans for the installation of electricity to supplant steam as the motive power are being made, the importance of the post to which he has been appointed is apparent. Not only has Mr. McCormack obtained, in his connection with the electric railway industry, such knowledge as would thoroughly fit him for the duties he is about to assume, but his former experience as trainmaster and assistant superintendent of the Central Railroad some few years ago, makes him particularly well fitted for the new position. Some twenty-two years ago Mr. McCormack entered railroading in a minor capacity, but in 1888, by ability alone, he had been advanced to the position of trainmaster of the West Shore Railroad. In 1891 Mr. McCormack was acting for the West Shore Railroad as trainmaster, and his next position was with the New York Central Railroad in the important capacity already noted. Mr. McCormack resigned from the New York Central to supervise the equipment of the Chicago & Northwestern Railroad with electric signals, and his next position was as trainmaster of the Lake Shore Railroad, between Buffalo and Cleveland. It was in 1895 that Mr. McCormack entered the street railway field, accepting at that time the superintendency of the eastern lines of the Brooklyn Rapid Transit Company. It was not long, however, before he was appointed general superintendent of the entire system of the company. Mr. McCormack resigned from the Brooklyn Rapid Transit Company to become vice-president and managing director of the Syracuse Rapid Transit Company, but after a few months at Syracuse he resigned from the company to accept the position of general manager of the Cleveland Electric Railway Company. Here Mr. McCormack found a system on which there had recently been a strike, and his first work was to reorganize the working force of the company. After this had been done he devoted his entire time to the operating department. Mr. John J. Stanley, of Utica, N. Y., who was connected with the Cleveland Electric Railway before Mr. Henry Everett and his associates obtained control of the property, will succeed Mr. McCormack. Mr. C. Loomis Allen, formerly of Syracuse and Lorain, will succeed Mr. Stanley as general manager at Utica.

LEGAL DEPARTMENT

CONDUCTED BY WILBUR LARREMORE OF THE NEW YORK BAR

Indiana Three-Cent Fare Decision

The Indiana Supreme Court on April 30 handed down a decision upholding the constitutionality of the act of 1889, under which the present franchise of the Indianapolis Street Railway Company was granted, and decided adversely to Charles F. Smith in his suit for damages against the company for having been ejected from a car for refusing to pay more than 3 cents fare.

The litigation involving the 3-cent fare question began in 1897, after the General Assembly passed an act providing that in cities having a population of more than 100,000, according to the census of 1890, no street railway company should be permitted to charge more than 3 cents per passenger, and severe penalties for violation of the act were incorporated in the law. The same legislature also passed what is known as the New Act, fixing Jan. 18, 1901, as the time when the franchise of the Citizens' Street Railroad Company would expire, this act being passed as a result of a decision made by Judge Woods, of the Federal Circuit Court. As soon as the 3-cent fare act passed, the Central Trust Company, of New York, trustee for the mortgage bondholders of the Citizens' Company, brought an injunction suit in the Federal court against the city to prevent the enforcement of the act. Judge Showalter, of Chicago, heard the case and decided that the statute was invalid, on the ground that it was in violation of the provision of the State constitution which forbids special legislation, claiming that as the act applied only to cities having a population of over 100,000 it could apply only to Indianapolis, and was therefore special legislation.

This decision occasioned much adverse criticism, and a few weeks later the Indiana State Supreme Court, in the case of *Navin vs. the City of Indianapolis*, gave a decision directly the reverse of that of Judge Showalter, holding that the 3-cent fare act was constitutional. Judge Showalter was therefore asked to dissolve the injunction he had granted against the city, on the ground that the Federal courts were bound to follow the decisions of the State courts on questions involving the construction of the State Constitution. He refused to be bound by the State court, however, and declined to dissolve the injunction. The city of Indianapolis thereupon appealed from the decision to the Circuit Court of Appeals, at Chicago, but that court held that it had no jurisdiction.

A street railway company known as the City Street Railway Company was organized in 1893, and litigation arose between it and the Citizens' Street Railway Company, the State Supreme Court deciding that the Citizens' Company's franchise expired Jan. 18, 1901, the time set in the New Act, and that the thirty-years franchise granted the City Company in 1893 was valid after that date. In 1899 the Legislature passed the present act, which in effect repealed both the New Act and the 3-cent fare act in 1897. It authorized the city to make a contract with any company which could procure and surrender all the outstanding franchises of every description, stipulating that such a contract should provide that the rate of fare should be 5 cents for each cash fare and that six tickets for 25 cents should be sold. On April 6, 1899, under this act the present franchise was granted the Indianapolis Street Railway Company.

Subsequent to the granting of the franchise Charles F. Smith, with a view of further testing the 3-cent fare law of 1897, boarded a car on Washington Street and refused to pay more than 3 cents for his fare, whereupon he was ejected from the car. He then brought suit for \$10,000, and the lower court having decided against him he appealed to the Supreme Court, and set up the claim that because the act singled out a particular corporation and gave it the right to charge over 3 cents it was special legislation and in violation of the constitution.

The court, affirming the decision of the lower court, held that it was not special legislation. Judge Gillett, who wrote the opinion, said, in part: "There is nothing in the claim that no other company but appellee could make a contract by which it could charge in excess of 3 cents as fare; the act was intended as a readjustment of the whole street car situation in Indianapolis, at least as applied to any company entering into a contract with the city by virtue of said act.

"A careful study of the act," continued the court, "has convinced us that its sole effect, in so far as it relates to the relations of the city to street railroad companies, was to make it possible, under specified limitations, to make a contract for a street railroad

franchise that was not hampered by the provisions of the so-called 3-cent fare law of 1897. In this view it is quite plain that the act was not a grant to the appellee, but was merely a restoration to the city of its former power to enter into contracts for the grant of street railroad franchises."

This decision apparently ends the street railway litigation which for years has been before the courts in one shape or another. The decision follows:

"1. Held, that the acts of 1899, known as the Indianapolis street railway charter, does not undertake to grant special privileges or immunities to an existing corporation, nor to create a corporation by special law, but is constitutional.

"2. Held, that the fact that a law authorizes a municipality to make a particular contract, leaving it authority, under other sections of the law, to make other contracts, does not make it create a monopoly, even if there is a contract let without advertising or competition.

"3. Held, that said charter did not grant any franchise, but merely assumed to confer authority on the city of Indianapolis to grant a franchise.

"4. Held, that the General Assembly has power to pass local laws where not forbidden by the constitution."

NEW YORK.—Res Gestæ—Declarations.

Declaration of a person, made while looking from the window of a house, having a tendency only to corroborate his testimony that he then saw a street railway accident, is not admissible as part of the *res gestæ* of the accident.—(*Ehrhard vs. Metropolitan St. Ry. Co.*, 74 N. Y. Suppl., 551.)

NEW YORK.—Street Railways—Personal Injuries—Vehicles—Evidence—Inevitable Accident—Contributory Negligence.

1. Plaintiff, a boy about fifteen years old, while riding with his feet hanging down on the rear end of a truck being driven on a street railway track, and followed by one of the defendant's cars, was injured by his leg being struck by the car. Plaintiff testified that when the car was about 25 ft. away the bell was sounded, and that he started to lift his leg when the car was about 10 ft. away; that the car was proceeding at full speed, and was about 20 ft. or 30 ft. away when the driver of the truck started to pull his horses out of the track. The driver of the truck, corroborated by other witnesses, testified that as he pulled his team out of the track one of the horses slipped and fell, and a couple of seconds thereafter the car struck the truck. There was testimony that the car was proceeding slowly. Plaintiff testified that the horse did not fall until after the wagon was struck. Held, that it was not error for the court to fail to declare the accident unavoidable, but that it properly submitted the issue of negligence to the jury, with the instruction that, if they believed the accident unavoidable, the boy could not recover.

2. Plaintiff's contributory negligence was for the jury.—(*Setlesky vs. Third Ave. Ry. Co.*, 74 N. Y. Suppl., 518.)

NEW YORK.—Street Railroads—Injury to Traveler on Track—Evidence.

Plaintiff's intestate was run over and killed by defendant's street car, and this action was brought on the theory that such intestate was lying on or near the track in an unconscious condition when struck, and that the defendant was negligent in running its car at an excessive rate of speed and in failing to discover the deceased. Deceased, while somewhat intoxicated, alighted from another car, about a quarter of an hour before the accident, near the place thereof, but there was no evidence as to the rate of speed of the car which struck him, or that he was lying in an unconscious condition on or near the track. Held, that the evidence was insufficient, and plaintiff's recovery properly denied.—(*Mathison vs. Staten Island Midland R. Co.*, 72 N. Y. Suppl., 954.)

PENNSYLVANIA.—Street Railway—Injury to Cyclist—Contributory Negligence.

1. The dominant right to the use of street railway tracks is in the company, and must be deferred to by all the public having a right to cross, and they must use ordinary prudence to ascertain whether the owner of the track is about to use it.

2. A cyclist is bound to look and listen just before crossing street railway tracks, and is guilty of contributory negligence if he fails to do so.

3. In a suit against a street railway company for killing a

cyclist of mature years crossing its tracks there was evidence that the car was going at a high rate of speed. Plaintiff's witnesses, including decedent's son, who was riding with him, testified that the car was 50 ft. to 75 ft. away when decedent attempted to cross. He had then 17½ ft. to go to entirely clear both tracks and place himself outside the running board on the far side of the car, and was moving at from 10 ft. to 15 ft. per second. Several of plaintiff's witnesses testified that they were afraid the car would strike him. Held, that, even if decedent looked to see if a car was coming, he was negligent in crossing.—(McCracken vs. Consolidated Traction Co., 50 Atl. Rep., 830.)

PENNSYLVANIA.—Action for Death—Elements of Damages.

In an action for death, evidence as to profits of deceased in a partnership business, and that he furnished money in considerable amounts to his family, is not admissible as bearing on the damages they sustained by his death.—(McCracken vs. Consolidated Traction Co., 50 Atl. Rep., 832.)

PENNSYLVANIA.—Street Railways—Negligence—Evidence.

Where a child two years old was walking on a street car track toward a car approaching on an adjoining track, and crossed over on to such track about two car lengths in front of the car, and was run down, there being nothing to obstruct the view of the motorman, a finding that he was negligent is justified.—(Jones et al. vs. United Traction Co., 50 Atl. Rep. 826.)

PENNSYLVANIA.—Street Railways—Negligence—Parent and Child—Evidence.

Where a child two years old was in the front room of her father's house, in charge of a sister of fifteen years, who was scrubbing the walk in front, and while such sister went around the house for a pail of water the child went out on to a street car track, and was run into by a car, the question of the parents' negligence in permitting such escape of the child is for the jury.—(Jones et al. vs. United Traction Co., 50 Atl. Rep., 827.)

NEW YORK.—Appeal—Resettlement of Case—Exceptions after Verdict.

Though the practice of taking exceptions after verdict should not be encouraged where the parties have assented to such a course in respect to the numbers of plaintiff's requests to which defendants desire to except, a motion to resettle the case so as to allow the correction of the number of such requests should be granted.—(Sternfels vs. Metropolitan St. Ry. Co. et al., 74 N. Y. Suppl., 571.)

NEW YORK.—Action for Negligent Death—Damages.

Where the plaintiff's intestate, in an action for negligent death, was a longshoreman and fruit vender, at the time of his death engaged in keeping a fruit and vegetable stand, in which his wife assisted him, and it did not appear that the business was discontinued at intestate's death, a verdict for \$27,306 was excessive.—(Scarpati vs. Metropolitan St. Ry. Co., 74 N. Y. Suppl., 499.)

NEW YORK.—Personal Injury—Instruction—Witnesses—Failure to Call—Inference.

1. Instruction that plaintiff may recover if "hurt" is sufficient to authorize recovery for mental pain as well as physical pain.

2. Where plaintiff claims an injury to her nervous system, and defendant has shown by plaintiff that before the accident she visited certain physicians, and has introduced testimony of a person who accompanied her as to her demeanor, and statements made by the physicians, warranting an inference that long before the accident she was suffering from similar nervous impairment, and a finding that she was not physically normal, defendant's omission to call the physicians as witnesses, on the chance of plaintiff waiving her privilege as to their testifying, does not authorize an instruction that such omission requires an inference against defendant.—(Pronk vs. Brooklyn Heights Ry. Co., 74 N. Y. Suppl., 375.)

NEW YORK.—Contributory Negligence—Burden of Proof—Street Cars—Injury to Passenger—Negligence—Sufficiency of Evidence.

1. In an action for personal injuries the burden is on the plaintiff to show affirmatively that his own negligence did not contribute to the accident complained of.

2. Plaintiff's intestate, who was a passenger on defendant's street car, left his seat as the car was about to enter a 33-degree curve, and went out on the front platform, from which he fell. One witness stated that the car was running 20 miles per hour, and, when it struck the curve, deceased was lifted from his feet, and thrown over a chain 3½ ft. high across the entrance to the platform. Witness was about 1400 ft. distant. The evidence was overwhelming that there was no chain on the car. The motorman stated that his first knowledge of deceased's presence on the platform was when the car was entering the curve, when he saw him lift his hand as if for a signal; that about this time witness threw off the power, and deceased at the same moment opened

the gate across the entrance, and stepped down on the car step; that witness warned him, but he did not stop, and stepped down into the street. This witness said the car was running about 15 miles per hour, and others, who were passengers, placed it at from 10 miles to 15 miles per hour, and none of them seemed to think the car was going too fast. Held, that the evidence was insufficient to sustain a verdict based upon any negligence of defendant.—(Bruce vs. Brooklyn Heights Ry. Co., 74 N. Y. Suppl., 324.)

NEW YORK.—Street Railway—Condition of Car—Assumption of Risk—Damages—Permanent Injury—Evidence.

1. Defendant's cars were so arranged that at the end of a line, and before starting back, it was necessary to raise a bar and lower a step on one side of the car. Plaintiff was at the end of the line when a car arrived, and attempted to get on before the step was lowered, and as it was lowered it struck his knee. He was accustomed to taking the car at that point, and knew that the step must be lowered, but did not notice that it was not lowered until it struck him. Held, that he took the risk of an injury incident to the condition of the car when he attempted to board it.

2. Where the complaint alleged that by the negligence of a street railway company plaintiff received a fracture of the kneecap, which disabled him for four months, but did not allege that such injury was permanent, it was error to receive evidence of and to award damages for a permanent injury.—(Clark vs. Metropolitan St. Ry. Co., 74 N. Y. Suppl., 267.)

NEW YORK.—Street Cars—Personal Injuries—Contributory Negligence—Failure to Ring Bell.

1. Where a passenger got off a street car on a rainy, foggy night, waited for a truck on the opposite track to pass by, and then stepped on the track, and was immediately struck by a car going in the opposite direction, he was guilty of contributory negligence, though he testified that he did not see the car coming.

2. The failure of a motorman on a street car to ring a bell on approaching a crossing, where a car on the other track had just discharged passengers, would not justify a finding of negligence where his car was immediately behind a truck, and there was no reason for him to suppose that any one would step in front of the car when it was plainly visible.—(Johnson vs. Third Ave. R. Co., 74 N. Y. Suppl., 599.)

NEW YORK.—Elevated Road—Restraining Operation—Removal of Annoyance—Evidence—Competency—Condemning Injured Property—Damages—Speculative Evidence.

1. In a suit to restrain defendants from operating an elevated steam railroad in front of plaintiff's premises, a resolution of the stockholders authorizing the issue of additional stock, and directing the proceeds to be used to change the motive power to electricity, was incompetent to prove that the company was actually engaged in changing the motive power so as to obviate some of the injurious effects.

2. In a suit to restrain defendants from operating an elevated steam railway in front of plaintiff's premises, the injunction issued, but was made inoperative if within a reasonable time defendants paid for the value of the right to operate the road; the amount to be paid being based on the assumption that the road would still be operated by steam. There was proof that defendants were constructing a plant which would enable them to run by electricity, but no evidence when it would be in operation, or just what the proposed plant was, how it was to be operated, or that it would cause any materially different operation of the road. Held, insufficient to show that any of the causes contributing to plaintiff's injury would be discontinued, so as to lessen the award of damages.

3. Testimony of defendant's engineer as to the effect on the alleged annoyance of the alleged change to electricity was properly excluded as too speculative, and not justified by competent evidence as to the nature of the proposed new system.—(Laue vs. Metropolitan El. Ry. Co. et al., 74 N. Y. Suppl., 595.)

NEW YORK.—Wrongful Death—Excessive Damages.

In an action for damages for the death of a boy twelve years old, who earned \$3 a week, which he turned over to his mother, a verdict for \$12,000 in favor of the plaintiff is excessive, and should be reduced to \$7,500.—(McDonald vs. Metropolitan St. Ry. Co., 74 N. Y. Suppl., 367.)

NEW YORK.—Street Railways—Negligence—Injury at Crossing—Contributory Negligence—Evidence—Question for Jury—Evidence—Incompetency—Failure to Object.

1. Where plaintiff, in an action against a street railway for injuries at a crossing, was nine years of age, and testified that she looked both ways while near the gutter at the crossing, and, seeing a car about 170 ft. distant, proceeded at a fast walk across the street, there was sufficient evidence to take the question of contributory negligence to the jury.

2. The question of error in the admission of evidence will not

be considered on appeal when the alleged incompetent evidence was not objected to at the trial, and no exceptions were taken to references thereto by counsel in argument and the court in the charge.—(Dorseh vs. Brooklyn Heights Ry. Co., 74 N. Y. Suppl., 257.)

NEW YORK.—Street Railroads—Contributory Negligence—Negligence—Evidence—Sufficiency—Negligence—Guarding Excavation—Liability of Contractor—Instruction—Pleading—Allegations—Injuries—Damages—Future Suffering—Instructions—Excessive Damages.

1. In an action against a street railroad company for injuries sustained by a passenger by stepping into a trench when alighting from a car in the night time, plaintiff having testified that no warning was given her by the conductor or anyone, and that she did not see the ditch, or any rope or red lights, such as usually used about excavations, the question of whether plaintiff was guilty of contributory negligence was for the jury.

2. Where a street railroad company had caused a trench to be excavated in a street, such trench being bridged over at crosswalks, and a car stopped in the night time at such a point that a passenger alighting stepped into the trench, the passenger not having been warned by the conductor, in an action for the injuries the jury were warranted in finding negligence, either in stopping the car opposite the open trench or in not properly guarding the trench.

3. Where a street railroad company contracts with one to make an excavation in a street near its tracks, while the company is not liable for the negligence of the contractor, it owes a duty to the public to exercise care to guard the excavation.

4. Where one having a contract for the excavation of a trench along the side of a street railway track bridged the trench at crosswalks, and at night protected the trench only by ropes and lights, which were stretched on the sidewalk of the trench, it could not be said as a matter of law that the contractor had discharged his entire duty in covering the trench, and leaving the safety of passengers desiring to alight to depend on the accuracy of the motorman's judgment in stopping the car opposite the bridge.

5. Where a street railroad contracted with one to excavate a trench beside its track, and the contractor constructed bridges over the trench at crosswalks, but a passenger alighting at night from a car which did not stop beside the bridge stepped into the trench and was injured, and it was a question whether there were any lights about the trench, in an action against the railroad company and the contractor it was prejudicial error, as against the contractor, to refuse to charge that the contractor was not bound to exercise care to prevent those stepping off a car from stepping into the trench, if he had provided proper bridges for passengers to alight on.

6. Where, in an action for personal injuries, the complaint alleged that plaintiff's ankle and wrist were sprained, and that she received bruises about her body and limbs, "and, as she is informed, injuries of an internal nature, which may be permanent," the allegations of the complaint were sufficiently broad to include injuries to plaintiff's womb.

7. Where, in an action for injuries, plaintiff testified that from the moment of the accident she had suffered pain, such as she had never experienced before, and physicians testified that she was suffering with a difficulty with the womb, which caused such pain, the evidence was sufficient to warrant an inference that the pain spoken of by her emanated from the difficulty testified to by the physicians, and that the trouble resulted from the accident.

8. In an action for injuries, evidence of physicians that they found plaintiff suffering with a difficulty which should be relieved by an operation, and of one that the treatment was required, and of another that it was proper, it appearing that without such operations the pain suffered by plaintiff would continue indefinitely, was competent.

9. In an action for injuries sustained by plaintiff, an instruction that plaintiff was not entitled to recover for any future pain or suffering was more favorable than warranted.

10. Where, in an action for injuries, physicians testified that plaintiff was suffering with a difficulty which should be relieved by an operation such evidence could not be regarded as erroneous, it appearing that the court charged more favorably to defendant than the circumstances warranted, to the effect that there could be no recovery for any future pain or suffering.

11. In an action by a married woman, twenty-nine years old, for injuries which had caused her to suffer much pain for nearly two years and one-half prior to the trial, a verdict for \$3,000 was not excessive.—(Wolf vs. Third Ave. Ry. Co. et al., 74 N. Y. Suppl., 336.)

NEW YORK.—Railroads—Injury to Persons on Track—Degree of Care—Defendant's Negligence—Question for Jury—Contributory Negligence—Question for Jury.

1. An elevated railroad company owes to the employee of a switch company which is putting in a switch system on its tracks the exercise of such care to avoid injuring him as a man of ordinary experience and prudence would exhibit under like circumstances.

2. Plaintiff's intestate, an employee of the switch company putting in a switch system for defendant railroad company, was killed by defendant's engine. Evidence examined, and held, that the question of defendant's exercise of due care to avoid the accident was for the jury.

3. Plaintiff's intestate, an employee of the switch company putting in a switch system for defendant railroad company, was killed by defendant's engine. Evidence examined, and held, that the question of intestate's contributory negligence was for the jury.—(Wells vs. Brooklyn Heights Ry. Co., 74 N. Y. Suppl., 196.)

NEW YORK.—Carriers—Ejection of Passenger—Refusal of Fare—Instructions.

In an action against a railroad company for death resulting from the ejection of plaintiff's intestate for refusing to pay his fare, though the court charged that, if a passenger refused to pay his fare, the conductor could then employ as much force as was necessary to effect his removal, using no violence and committing no unnecessary injury, its refusal to further charge that "if, however, the passenger refused to comply, and an injury happens," the company was not responsible, was error, necessitating reversal of plaintiff's judgment.—(McCullen vs. New York & N. S. Ry. Co., 74 N. Y. Suppl., 209.)

NEW YORK.—Street Railway—Personal Injury—Contributory Negligence.

Where plaintiff, intending to cross a street railway track, looked along the track as he left the sidewalk, and again when halfway to the track, without seeing a lighted car, with headlight, approaching at the rate of 7 miles an hour—there being nothing to obstruct his view—stepped on the track, and was struck by such car, the injuries resulted from his own negligence.—(Madigan vs. Third Ave. Ry. Co., 74 N. Y. Suppl., 143.)

NEW YORK.—Witnesses—Privileged Communication—Physician—Rules of Hospital.

1. Under Code Civil Proc., sec. 834, providing that no physician shall disclose any information which he acquired in attending a patient which was necessary to enable him to act in his professional capacity, where plaintiff claimed that he was injured by driving into a hole in the street near defendant's railroad track, the surgeon who attended him should be permitted to answer the question, "Did the plaintiff state to you in the hospital ambulance that he had slipped from his wagon while trying to get on to it, and that the wagon ran over him?" since such statement could have no bearing on the treatment of plaintiff by such surgeon.

2. Where the rules of a hospital require the house surgeon, on receiving a patient who has been injured by an accident, to ascertain how the accident happened, statements made by a patient in compliance with such rules are privileged.—(Griebel vs. Brooklyn Heights Ry. Co., 74 N. Y. Suppl., 126.)

NEW YORK.—Change of Venue—Time for Moving Therefor—Motion not Barred by Former Order.

1. Under Code Civil Proc., sec. 984, requiring an action to be tried in the county in which one of the parties resided at the commencement thereof, change of venue was improperly denied the defendant where three affidavits, showing that defendant was not a resident of the county, and did not own property therein, and that plaintiff was not a resident of the county at the commencement of the action, were read in support of the motion, though plaintiff's attorney made affidavit on information and belief that plaintiff was a resident of such county, but not alleging the source of the information.

2. Code Civil Proc., sec. 986, requires a defendant desiring change of venue to serve a demand therefor with his answer, and, if the plaintiff does not serve his written consent within five days after service, the defendant's attorney may, within ten days after that, serve notice of motion to change the place of trial. Section 798 prescribes that, when a notice must be given or paper served within a specified time before an act is to be done, double the time specified is allowed if service is made by mail. Held, that a motion for change of place of trial made on Oct. 7, 1901, was made in time when the service of the demand for such change, with the answer, was made by mail on Oct. 6, and Oct. 6 fell on Sunday, which was excluded by Laws 1892, chap. 677, sec. 27.

3. A motion for a change of place of trial is not barred by an order requiring the plaintiff to disclose his address made on the hearing of an order to show cause why plaintiff should not make such disclosure, or, in default thereof, why an order would not be made changing the place of trial.—(Binder vs. Metropolitan St. Ry. Co., 74 N. Y. Suppl., 54.)

FINANCIAL INTELLIGENCE

THE MARKETS

The Money Market

WALL STREET, May 7, 1902.

Conditions in the money market have been very much disturbed by the collapse of the so-called Webb-Meyer Syndicate at the close of last week. Local bankers, according to all accounts, were not badly hit, but they evidently determined to improve the opportunity to weed out some of their highly speculative collateral and to serve notice upon manipulators and their agents that they could expect no further help for their ventures. The sudden calling of loans for these purposes forced rates up to 15 per cent last Thursday, and to 20 per cent the day before yesterday. Large sums were taken by anxious borrowers between these figures. But as everyone realizes these excessive rates were not warranted by the general conditions of the money market, and they will probably not be repeated again. A decided relaxation, in fact, took place yesterday. The "squeeze" in money has not been without some important offsets. It has caused a reaction in the foreign exchange market, postponing gold exports when they were almost certain; it has attracted increased supplies of currency from the interior, and it has reduced loans and liabilities by inducing liquidation on the Stock Exchange. For these several reasons the position of the local banks ought to show improvement in their next report, as compared with last Saturday, when surplus reserve decreased nearly \$2,000,000. The causes for last week's \$10,700,000 loan expansion were largely of a special nature, representing, for the most part, advances to the promoters of one or two large issues of new capital. At the same time, while lawful money biddings increased \$1,400,000, large sums were paid over to the Treasury against bond-security redemption which will not be repeated this month. The money outlook, as a whole, is somewhat uncertain, owing to the probability that gold exports will be resumed as soon as the local money market returns to a normal condition. But the present rates of 10 per cent for call and 6 per cent for time loans are, of course, wholly artificial and temporary.

The Stock Market

The collapse of the group of minor stocks on the Stock Exchange and curb, known as the Webb-Meyer properties, caused only temporary disturbance in the general market. The episode was chiefly important, as it showed, on the one hand, the determination of the banks to check unwise and excessive manipulation, and, as it brought out again, on the other, the strength of the forces now upholding security prices. Practically the universal comment made upon the whole experience is that the market stood the strain exceedingly well, proving that stocks were held still in strong hands, and that the dangers of a collapse like that of a year ago did not exist in the present situation. Wall Street has, furthermore, had the chance to observe, what it so often has before during the spring and recent winter, that securities may recover or rise just as easily by reason of a small supply as by reason of a large demand. The various cliques of professional speculators who have conducted the manipulation of the last six weeks were shrewd enough to recognize this fact at the outset. They had scant hopes of attracting a big public buying movement, but they reckoned confidently upon the tenacity of holders of securities, when to sell might mean the loss of a controlling interest in one or another corporation, or else, in the case of smaller investors, when it meant there was no better way of employing their money. It has been easy under these circumstances for speculators with abundant capital and plenty of courage to put up prices at different times high enough to allow sales for substantial profits. This has been the scheme of operations during the last month, and, for aught that can be seen now, this will continue to be the scheme for a while yet to come. The indifference of the market to brokerage failures and exorbitant money rates is a phenomenon which easily fits in with the same analysis. Meanwhile, however, railroad earnings are increasing even in the Southwest, where, during the winter months, they were falling off heavily, and the crop outlook has been greatly improved by copious rainfall throughout the whole producing region.

The local traction shares have done nothing more than follow the course of the general speculation. A decision in the franchise tax matters seems probable during the latter half of this month, and the Manhattan Elevated's report for the March quarter will come out very soon after this writing. But apart from these there are no influences of a special nature for operators in the traction shares to go by. The advance in Brooklyn Rapid Transit to 72 last week was mostly manipulation, and it was checked summarily by

the sudden weakness in the general market at the week's close. But a renewal of operations for the rise is a quite probable occurrence. Manhattan appeared to have been well bought on the decline, and offerings at the low figures were extremely light. Metropolitan shows both liquidation and fresh investment buying, the latter coming from people who have faith that the 7 per cent dividend will be steadfastly maintained.

Philadelphia

The important developments in Philadelphia are the ratification by the Union Traction stockholders of the lease of the company to the new Philadelphia Rapid Transit Company and the adoption at the same time of a resolution authorizing the directors to issue \$1,500,000 fifty-year 4 per cent collateral trust bonds secured by deposit of 35,000 shares of the common stock of the Hestonville, Mantua & Fairmount Passenger Railway Company. This bond issue will be used to take up the present floating debt of the Union Traction. The approval of the lease had been so generally discounted that the market for Union Traction shares was not affected by the announcement. After a brief rise to 44 the quotation quickly relapsed to 43½, which was about the figure of a fortnight ago. On further talk of an increased dividend, American Railways went up from 46 to 47, but later lost all the gain. The recent demand for Camden & Trenton was not maintained, and the stock reacted from 6 to 5. Other stock sales include Philadelphia Traction at 98, Railways General at 5 up to 5½, Consolidated Traction of New Jersey at 70 and 69¾, Germantown Passenger at 147, Philadelphia, Germantown & Morristown at 172 and Fairmount Park Transportation at 24½. The recent sales of traction bonds include Electric-People's Traction 4s at 98½ to 99, Consolidated of New Jersey 5s at 111½ up to 112¼, People's Passenger 4s at 106½, Union Traction of Indiana 5s at 101¾, Citizens' Passenger of Indianapolis 5s at 109½, Rochester Passenger 5s at 112¼, Wilmington & Chester Traction 5s at 106¼ and Indianapolis Railway 4s at 86¾.

Chicago

The movement of traction securities in the Chicago market has been irregular, with very few important changes, during the past fortnight. So far as general influences are concerned, the expected decision of Judge Seamans on the ninety-nine year franchise dispute is awaited with the most anxiety. It is commonly believed that the opinion will be in favor of the companies, and should this be the case officials of the roads say that they will at once start in upon an extensive scheme for improving the condition and efficiency of the various properties. Traffic returns in every instance are running well ahead of last year. Metropolitan had the best April in its history, and Lake Street's business is also particularly heavy. Officials of the latter company look for a greater density of traffic owing to the active building now in progress along the line. The stock has advanced under active buying to 13½. South Side shares were very strong, selling up to 115. City Railway, after a rise to 224, fell off to 215 on light transactions. Union Traction encountered heavy profit-taking above 22 and the price reacted to below 21.

Other Traction Securities

The feature of the Boston market has been the reaction in Massachusetts Electric, which, after selling at 45½ for the common and 98½ for the preferred ten days ago, has reacted to 43¾ and 97¾ respectively. Heavy realizing sales were the only apparent cause for the decline. Boston Elevated in small fractional lots has changed hands as high as 169 and as low as 163. United Railways of Baltimore stock and bonds have attracted no attention from the local speculators or investors. Prices have held almost stationary at 16¼ for the shares, 71¾ for the incomes and 95 to 95¼ for the general 4s. Other Baltimore transactions during the last two weeks include Charleston Electric 4s at 89, Norfolk Railway & Lighting 5s at 95 and 94, North Baltimore Traction 5s at 121½, Norfolk Street Railway 5s at 113 and 113¼, Charleston Railway 5s at 118½, Atlanta Street Railway 5s at 107½, Lexington Railway 5s at 102, City Passenger 5s at 109½, Richmond Traction 5s at 109 and Norfolk Railway & Lighting common stock at 12¼. A sharp advance in Louisville Street Railway common to 115½ seems to have been an adjunct to an active local speculation which was started by the rise in Louisville & Nashville Railroad shares. There is no news except good earnings in connection with the property, and the stock, be it noted, only pays 4 per cent. New Orleans Railway issues have continued in good demand, the common selling as high as 32½ and the preferred 110. This represents advances of 2½ and 4 points, respectively, since the Pearson Syndicate took over the property.

San Francisco stocks on the New York curb have been dealt in moderately, with barely any change in prices. The common stock is selling around 25, the preferred around 60½, the bonds around 90½ and the subscription privileges around 102.

Long-continued doubt as to the disposition of Everett-Moore properties caused another quiet week on the Cleveland Stock Exchange. During the week something over 700 shares of Detroit United changed hands, opening at 72 and closing at 71¼. The only other traction stock which sold was Northern Ohio Traction, 275 shares changing hands at 35 and 34. Monday 100 Detroit United sold at 71¼, stationary figure.

Security Quotations

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

	Closing Bid	
	April 22	May 6
American Railways Company.....	46	46
Boston Elevated	166	163
Brooklyn R. T.....	66¾	67½
Chicago City	220	a220
Chicago Union Tr. (common).....	22	20½
Chicago Union Tr. (preferred).....	58	a58
Cleveland City	105	..
Cleveland & Eastern	30	31
Cleveland Electric	82	82¾
Columbus (common)	51½	54
Columbus (preferred)	104¾	104
Consolidated Traction of N. J.....	70	70
Consolidated Traction of N. J. 5s.....	111	112
Detroit United	71	71¼
Electric-People's Traction (Philadelphia) 4s.....	98½	98¾
Elgin, Aurora & Southern	38	40
Indianapolis Street Railway 4s.....	86¾	86¾
Lake Street Elevated.....	127½	133¾
Manhattan Ry.	134¾	133½
Massachusetts Elec. Cos. (common).....	45¼	43½
Massachusetts Elec. Cos. (preferred)	97¼	97½
Metropolitan Elevated, Chicago (common).....	39¾	39½
Metropolitan Elevated, Chicago.....	90	90¾
Metropolitan Street	151½	151
New Orleans (common).....	31¾	32¼
New Orleans (preferred)	108¼	110
North American	127¾	127
Northern Ohio Traction (common).....	35	34
Northern Ohio Traction (preferred).....	85	85¼
North Jersey	27	27
Northwestern Elevated, Chicago (common).....	37¼	37
Northwestern Elevated, Chicago (preferred).....	85¼	85¼
Philadelphia Traction	98	97¾
St. Louis Transit Co. (common).....	30	30½
South Side Elevated (Chicago).....	a114¼	a115
Southern Ohio Traction	a67	64¾
Syracuse (common)	22	24
Syracuse (preferred)	62	64
Third Ave.	130	130
Toledo Railway & Light.....	21½	28
Twin City, Minneapolis (common).....	122¼	120¾
United Railways, St. Louis (preferred).....	82¾	83¾
United Railways, St. Louis, 4s.....	88	88
Union Traction (Philadelphia).....	43½	43¾

* Ex-dividend. † Last sale. (a) Asked. (b) Ex-rights.

Iron and Steel

The situation in the pig-iron trade promises a prolonged deadlock between buyers and sellers over the placing of new business. Consumers are in no hurry to order, because they believe that production is steadily expanding, and that eventually sellers will not be able to be so arbitrary. Producers, on the other hand, with stocks on hand down to almost nothing and a full business booked for a long time ahead, can afford to name their own terms. Imports appear to be on the increase, not only in steel but in structural material. In steel rails it is hardly possible to arrange for any considerable order before the first of next year. Prices are quoted as follows: Bessemer pig, \$20; steel billets, \$33; steel rails, \$28, nominal.

Metal

Quotations for the leading metals are as follows: Copper, 12½ cents; tin, 28¼ cents; lead, 4.10@4.15 cents, and spelter, 4.40 cents.

STOCKTON, CAL.—The Stockton Electric Railroad has been purchased by W. G. Henshaw, W. A. Bissell and A. S. MacDonald, of San Francisco, who have recently been securing electric railway franchises in this vicinity. The new owners will make extensive improvements, extending branches to all parts of the city. A system will also be run into the country, and a road to Lodi is assured.

JACKSONVILLE, FLA.—Representatives of Stone & Webster, of Boston, so it is said, are now in Jacksonville negotiating for the purchase of the Main Street Railroad Company and the Jacksonville Street Railway.

CONCORD, MASS.—The Concord, Maynard & Hudson Street Railway Company has petitioned the Railroad Commissioners for authority to issue additional capital stock to the amount of \$65,000.

ST. LOUIS, MO.—The report of the St. Louis Transit Company for the month of March shows that the total gross receipts were \$500,117, against \$461,352 for the same month last year, giving an increase of \$38,765 or \$1,250 per day. From the beginning of the year to April 1 the earnings amounted to \$1,386,251, an increase of \$77,029.

OSSINING, N. Y.—The Westchester Traction Company has filed a mortgage to the New York Security & Trust Company as trustee to secure \$1,500,000 of 5 per cent \$1,000 bonds dated April 1, 1902, and due April 1, 1932. Interest is payable April and October. The plan of the company is to issue \$600,000 in bonds at once.

BROOKLYN, N. Y.—The Brooklyn Rapid Transit Company announces the sale of \$5,000,000 of bonds, a part of the issue of \$150,000,000 4 per cent bonds which the stockholders of the company authorized some time ago. The proceeds of the sale will be devoted to corporate purposes, such as payments on the new power house and for new equipment. It is understood that a syndicate, of which Flower & Company are the managers, bought the bonds. The price and other details in connection with the sale were not disclosed.

JACKSON, TENN.—The Jackson & Suburban Street Railway and the Citizens' Gas Light Company have been sold to a syndicate of Pennsylvania capitalists through Col. N. F. Thompson, of Sheffield, Ala. The company will immediately expend about \$100,000 additional on extension of mileage in the suburbs and in other improvements. The new company will take possession of the property about June 1.

TOLEDO, OHIO.—It is reported that President Kerper, of the Toledo, Bowling Green & Southern Traction Company, has secured an option on the Toledo & Maumee Valley Railway with a view to securing an independent entrance to Toledo. The Toledo & Maumee Valley is at present owned and operated by the Toledo Railways & Light Company, and it is understood to be on the market. Mr. Kerper denies that he will buy the road.

YOUNGSTOWN, OHIO.—A consolidation of the Mahoning Valley Railway Company, the Trumbull Electric Company and the Mineral Ridge & Niles Electric Company was effected May 1 at meetings of the directors of the companies. The new company will be known as the Mahoning Valley Electric Railway Company, and the capital stock has been increased from \$1,500,000 to \$2,500,000 for the purpose of covering the cost of all of the properties. The system includes a through line from Leavittsburg to the State line, a distance of 50 miles. The Lowell & New Castle Railway is owned by the same people, but it is not included in the consolidation. The system is controlled by M. A. Verner, of Pittsburgh, and James Parmelee and M. T. Herrick, of Cleveland.

PITTSBURGH, PA.—The Philadelphia Company and affiliated corporations report earnings as follows:

	1902	1901
March		
Gross earnings	\$1,166,227	\$1,067,133
Operating expenses	630,807	464,309
Earnings from operation.....	\$535,420	\$592,824
Other income	83,719	16,140
Total income	\$619,139	\$608,964
Interest, rentals, dividends	401,754	322,464
Surplus	\$217,385	\$286,500
From Jan. 1 to March 31		
Gross earnings	\$3,535,694	\$3,126,808
Operating expenses	1,741,456	1,506,913
Earnings from operation.....	\$1,794,238	\$1,619,895
Other income	592,304	262,411
Total income	\$2,386,542	\$1,882,306
Interest, rentals, dividends	1,317,122	915,432
Surplus	\$1,069,420	\$966,874

PITTSBURGH, PA.—The Philadelphia Company, which controls, among other concerns, the Pittsburgh Railways Company, held its annual meeting in Pittsburgh a few days ago. President Jos. H. Reed was re-elected, as was the old board of directors, composed of H. J. Bowdoin, Patrick Calhoun, Jas. D. Callery, George H. Frazier, T. H. Given, M. K. McMullen, Joshua Rhodes and W. L. Elkins. The report shows that the total income of the company for the year ending March 31, 1902, was \$2,218,769, and the net income \$1,902,454. The gross earnings of the subsidiary companies were \$5,505,943.69; operating expenses and taxes, \$2,855,469.07, leaving a net earnings of \$2,650,474.62. The net income was \$943,879.05. The total deduction from the surplus of the Philadelphia Company, including dividends on stock and organization expenses charged off, was \$1,195,035, leaving a surplus on March 31 of \$1,057,560.

PETERBOROUGH, ONT.—The Peterborough & Ashburnham Street Railway, which has not been operated for the past three years, has been sold to a Detroit syndicate, which will, it is said, commence at once to place the line in condition to resume operations by July 1. The National Construction Company is announced as the purchaser.

TORONTO, ONT.—There is talk of a consolidation of the Toronto Electric Railway Company and the Toronto Electric Light Company, both of which are controlled by practically the same interests.

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.

Table with columns: COMPANY, Period, Total Gross Earnings, Operating Expenses, Net Earnings, Deductions From Income, Net Income, Amount Available for Dividends. Rows include companies like AKRON, O., ALBANY, N. Y., BINGHAMTON, N. Y., BOSTON, MASS., BROOKLYN, N. Y., BUFFALO, N. Y., CHICAGO, ILL., CLEVELAND, O., CLEVELAND & EASTERN, CLEVELAND EL. RY. CO., DENVER, COL., DETROIT, MICH., DULUTH, MINN., ELGIN, ILL., HAMILTON, O., LONDON, ONT., MILWAUKEE, WIS., MINNEAPOLIS, MINN., MONTREAL, CAN., NEW YORK CITY, OLEAN, N. Y., PITTSBURG, PA., PHILADELPHIA, PA., RICHMOND, VA., ROCHESTER, N. Y., SCRANTON, PA., SCHENECTADY, N. Y., SYRACUSE, N. Y., TOLEDO, O., W. NEW BRIGHTON, S. I.