



The Pacific Electric MAGAZINE



ISSUED MONTHLY BY THE EMPLOYEES OF THE PACIFIC ELECTRIC RAILWAY

Vol. 4

LOS ANGELES, CAL. SEPTEMBER 10, 1919

No. 4

TO OUR LOYAL, STEADFAST EMPLOYEES

IT is deemed proper at this time to briefly review the affairs of the Pacific Electric, especially as they are related to the working conditions as applied to its employes.

We have felt, and it has been the policy for many years, that we could and would work out our own destinies, improve our working conditions and give thought to the economic conditions surrounding us in order that we could and would become better citizens of the community.

We have provided many avenues for the free expression from all of our employes; we have endeavored to make their surroundings comfortable; we have encouraged and have developed avenues where sickness could be alleviated and relief given, in an unostentatious manner. In other words, we have tried to make one large community family.

Our Club is purely social. It is for the entertainment of our members at practically no cost to them. Our Vacation Camp allows us to become rested in mind and body at the very minimum of cost.

The management of the Pacific Electric, appreciating the lessened purchasing value of the dollar, have voluntarily increased wages in all departments, without favor, practically to the financial breaking point, or to the limit of its resources. In other words, it is our policy to deal man to man as equals, appreciating that after all we are all of the same human family.

As in all walks of life, there has crept into our ranks those who have personal and selfish motives. They have led and misguided many of our loyal employes, feeding them on untruths and holding out impossible promises.

We had no clash, no differences until these agitators came among us a little over a year ago. You are all familiar with, and know that up to July 1918 we disapproved of unions with outside affiliations within the Pacific Electric Railway. Following the strike, however, of July 1918, we took back many men with labor union affiliations, hoping, or at least trying the experiment of the open shop principle. The results of the last few weeks have shown that this was a costly experiment. They have shown that our men were misguided, misled and given false promises.

We know that only about 1500 men responded out of a total of 4800 employes that they claimed were subject to their call, and we cannot concede that this minority, many of whom were intimidated and forced against their will,

should dictate to those who are peaceful, law-abiding and home-loving.

We wish to continue our relations. We wish to make the working conditions on the Pacific Electric as agreeable as it is possible so to do. To this end we will continue our Club; we will improve our terminal facilities and recreation rooms; we will make our vacation camp more attractive from time to time, as has been our aim in the past; we will continue the monthly open meetings of our trainmen; we will call meetings of any other craft at any time that may be necessary or desirable, in order that we may thus put into effect a plan of collective bargaining with the employes of the Pacific Electric Railway Company.

In other words, the Pacific Electric will continue to treat with its men individually or collectively, will deal with all employes who so desire, in any one class of occupation, in open meeting, in connection with any question, and if desired such employes as care to do so can, in open meeting, delegate their rights in connection with any such question or questions to a committee of employes only. Others can choose a separate employes' committee in open meeting, if they like, and others who prefer to deal individually with the Company will have individual hearings or collective group hearings if they do not care to select a committee. In other words, the right of employes to deal direct with the Company, or through a committee, or as a group will not be abridged.

The Pacific Electric Railway Company, through its management, wishes to extend its grateful appreciation of the steadfast loyalty of the men who braved the intimidation of our former employes and reported for their accustomed duties. We wish to say that we will stand by and see that these loyal employes will be assured of the continuity of their service and be given the preference in accordance with their seniority as long as they continue to remain loyal and perform their accustomed duties.

Notwithstanding the erroneous statements that have been circulated, the men who left our service will only be taken back as new men, as individuals, taking their places behind our loyal men or new men who came to us during the period of the trouble and have remained loyal and steadfast to us.

H. B. TITCOMB, Vice-President.

MAINTAINANCE OF WAY DEPARTMENT NOTES

M. L. RODDA, Associate Editor

VALUATION — PACIFIC ELECTRIC RAILWAY COMPANY

The valuation of this company's property now nearing completion is being made under an order issued by the Railroad Commission of the State of California, which Order required the Pacific Electric to file with the Commission maps and profiles of the various lines, together with full and complete reports, in detail, on Railroad Commission forms, of all property owned.

In the beginning, a small force was organized, consisting of engineers, accountants, estimators and draftsmen. The preliminary survey established beyond peradventure of doubt that there was a "mountain of work" to be performed by the Valuation employees.

The Pacific Electric system, let it be known, is the result of evolution in city, suburban and inter-urban railway transportation in Southern California—and covers the period from 1885 to the present date. This company's predecessors consisted of narrow-gauge and standard-gauge horse-car lines; narrow-gauge cable and steam roads; narrow-gauge urban, suburban and inter-urban electric lines, and finally standard-gauge city, suburban and inter-urban electric lines of standard construction which at the present time extend to and serve practically all of the important cities and towns in Los Angeles, Orange, Riverside and San Bernardino counties. It consists of seventy-two component parts seventy of which are constituent and predecessor companies; the others, leased lines.

Considering the maze of construction, re-construction, rehabilitation, purchases, consolidations, et cetera, it was not surprising that many valuable records were not to be found in this company's possession. This fact created a vast amount of field and office work on the part of the engineers and draftsmen, and practically an impossible task for the accountants on Valuation. And to add to the burden, a large percentage of the old companies had no adequate maps and profiles, while those which were located were of little value as they were not in accord with the Railroad Commission's specifications. It was therefore necessary to make new maps and profiles of each Valuation Section, and this, within itself was a large and important feature of the work.

In the beginning, a reproduction program was mapped out, and the system divided into one hundred and eighteen Valuation Sections which followed very closely the lines owned, jointly owned, or leased. Each section was segregated into its various and sundry component parts such as rights-of-way and other lands, grading, ballast, ties, rails, fastenings, paving, roadway and track labor; bridges, trestles and culverts; cattle-guards, fences, crossings and signs;

poles and fixtures; distribution and transmission systems, interlocking plants; stations and miscellaneous buildings, and many others—all in accordance with the Railroad Commission's modification of the classification prescribed by the Interstate Commerce Commission for electric railways. Each component part was then divided into units; prices were worked up from actual cost and other sources and applied to the various units, and extensions run—so that, when finally completed, the reproduction value of a line shows (in detail) the kind, quantities, prices and value of each component part of such valuation Section, together with location of each on the line and the approximate date of installation.

Power plants, substations, shops and carhouses—with their equipment—are similarly treated, as well as the various classes of rolling stock.

The accountant's part of the work has been to obtain as nearly as possible from the company's records, the exact cost of original construction, installation or acquisition of the physical property owned, together with the cost of additions and betterments—each Valuation Section separately—segregated into the fifty or more classes prescribed by the Interstate Commerce Commission; also to obtain from the company's records actual cost data for reproduction purposes; and to furnish the historical data required. In this Valuation, the accountants have obtained the individual costs of each parcel of right-of-way and other land owned, insofar as same could be obtained from the company's records, and to a certain extent, the cost of each car and locomotive separately.

The detail work performed by Valuation employees differs in many respects from the work ordinarily done in the Engineering and Accounting Departments, and it is not always an easy matter to recruit and hold an efficient force. Therefore, when the war cut the force to a bare minimum, there was a period of approximately fifteen months during which very little could be accomplished as compared with the total amount of work necessary to be done. At this time, however, our old employees are back on the job and rapid headway is now being made. We have gotten to where we can see "the other side of the mountain" and it will not be a great while before this Valuation will be completed. It has been a long, arduous work—little understood by the departments not connected with it—but it is sure to prove its worth in more ways than one.

During the past few years, there has been a great deal of loose talk regarding the excessive capitalization of railways over physical value of the properties. It can be stated, without fear of contradiction, that when this Valuation is completed, the company can show the public in general that

the actual value of its property greatly exceeds its bonded indebtedness. Very few members of the Pacific Electric family—outside of the Valuation Bureau—realize what a giant our system is when compared with other electric railways throughout the country. Realizing this, however, as we do, it is with considerable pride that we view our affiliation with the greatest interurban system in the world.

PE

PE

MAJOR JOHN LANSDALE RETURNS

The many friends of Major John Lansdale, formerly Assistant Engineer in charge of Valuation work, will be pleased to learn of his return after almost nineteen months in the service in France. Major Lansdale is another of our boys who made good with a vengeance, as will be noted from the service record hereinafter briefly outlined.

He received a commission as Captain of Engineers on June 28th, 1917, and shortly thereafter left for Leavenworth, Kansas, where he underwent approximately three months of intensive training and after graduation, left New York on December 18, 1917, for France. Arriving in France, he was made Engineer Officer in charge of construction on railroad line to Base Hospital 27 at Angers; then Superintendent of Railway Construction at Nevers, France, and was directly in charge of building the Nevers Cut-off, the largest single unit of main line construction performed by the United States forces in France. From this point forward his promotion was rapid, being in turn Chief Assistant to Chief of Railroad & Dock Construction Section of the Division of Construction and Forestry of the Services of Supply, at Tours, and after the armistice, chief of the Railroad & Dock Construction Section, and wound up the affairs of that office in France. He was promoted Major of Engineers August 26th, 1918; received citation from General Pershing for "especially conspicuous and meritorious services"; released from service July 30, 1919.

Some record! but not at all surprising to those who knew his capabilities as an engineer and a doer of big things. Major Lansdale not only has the necessary ability and energy to succeed, but combines also the happy faculty of being able to "get along" with his men at all times.

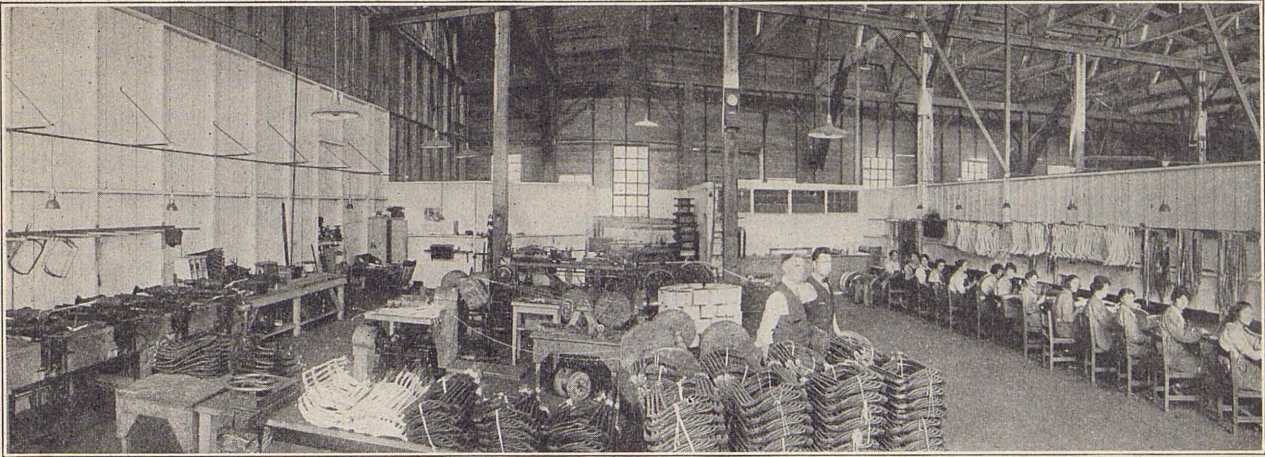
He will in a short time again take up his old position with this Company and we are all glad to welcome him back.

PE

LATER DISPATCHES

The two weeks' hunting trip we don't dare mention, but a nine and one-half pound girl is another matter. Mother and daughter are doing very well and Burleigh F. Manley, the proud father, has already forgotten the fruitless hunt.

Another decoration for Bruce K. Malcolmson, this time a wife.



MECHANICAL DEPARTMENT NOTES

C. A. MILLS, Associate Editor

THE WINDING ROOM ANNEX

Situated amidst the busy departments of our mechanical organization at 7th and Alameda, is perhaps one of the most interesting divisions of these works that keep our big Red Cars all trimmed up for service, and yet there are likely many who are not acquainted with the part that this division plays in the maintenance of our equipment.

The shop was first started in Sept. 1918 rather as a war time measure, women being employed exclusively on account of the shortage in male labor, although women have been engaged in this capacity for several years in the East, by such organizations as the Westinghouse, General Electric, etc.

Practically all of the machinery and equipment installed is new, the shop itself being fitted up especially for women. A comfortable rest room is provided with lockers etc., and the workers chairs and stools are far better than the most big up town stores provide for their employes.

The workers are divided into two classes, namely, bench group and machine operators. The bench work consists chiefly in insulating, taping and assembling all different types of armature coils, however quite a varied line of work is done by this group and some may be mentioned as follows. Tinning coil leads, sleeving, papering, making up store stock material, such as tow-car couples for signal bell circuits, headlight ground cords, and resistance cans, heater panels, and compressor resistance tubes, etc., also a great deal of work in connection with running repairs, as, stripping air-compressor armatures.

The machine operating unit is a very interesting group, and a good many different types of coils are wound and formed, some of them are armature coils, as Westinghouse 76 type, which are used in the 800 class cars and the Westinghouse 89 type, of the 200 class cars, double pole magnet coils for coasting recorders, solenoid coils for contactors, re-

versers and switch groups in connection with control apparatus, field coils for air-compressor motors, operating and blow-out coils for air-compressor governors, etc., all the above work is performed on the form winding heads. Another interesting line in the machine group, is the unit pneumatic coil presses, which consists of four presses with different dies made to suit various types of armature coils. They have a double acting throat and tongue that lines up the work square and uniform. The presses are operated with a foot valve and a cut out cock in the airline is installed as a safety factor to eliminate any chance of injury to the operators.

Two of the most interesting machines are the wire stripping and insulating machines, which are quite an innovation on the Pacific Coast.

The first unit consists of a reel standard equipped with a pneumatic lift; the stripping machine, which straightens and cleans the wire and a winding reel that winds the wire on large spools in layer formation.

The wire reclaimed with this apparatus is taken from burnt out field coils in the larger motors, the wire itself being from $\frac{1}{4}$ inch to $\frac{3}{8}$ inches, in diameter. As it runs through the machine it is straightened by the action of one horizontal set of rollers and the vertical sets which are all grooved to fit the wire, in all there are 16 rollers in train, the wire then passes through a guiding die and is cleaned by a double set of revolving scratch brushes, after which it is reeled up and ready for reinsulating. These coils are sometimes burnt out in several places which requires splicing together, this is done by scarfing the ends to match and brazing the joint with silver solder, the joint is then dressed down and is just as strong as any point although it is exactly the same size as the balance of the wire.

The second unit consists of a reel standard also equipped with a pneumatic lift, the insulating machine and the winding reel.

The wire that has been taken from the above machine is fed through a unit of small rollers that act as tension regulators, it then enters a hollow spindle that is equipped with a nose piece and flattening attachment where the cotton insulating thread is held, there are two of these spindles which operate in opposite directions, the wire passes from the second spindle to a large capstan wheel which regulates the lineal rate of travel of the wire, which is determined by the number of strands of insulating thread used, the speed of this wheel can be changed to suit the condition through a series of gears provided for that purpose. The wire now passes on to the winding device where it is reeled up. These spools when filled weigh from 350 to 525 pounds each, depending on the size of wire.

With some special attachments and change gears made in the shops, it has been made possible to insulate the largest size wire, which is used in the field coils of the 76 type motors under the 800 class cars, with asbestos tape, put on in the same manner with a half lap. Insulation of this sort has a normal life five or six times greater than cotton insulation.

Quite a good deal has been said in regard to the shop and its equipment but not much mention has been made of the workers themselves, which the readers without a doubt are as much interested in as the shop.

Perhaps to our fair sisters in the offices and our wives and daughters the idea may be conveyed that women who could perform the work outlined in the foregoing paragraphs would have to be selected from our ancestors of the Antedeluvian or Stone age or some bouncing Russian tribe, but I believe that a little study of the accompanying photograph will convince them that it is merely another proof contrary to the supposition that women are not capable of doing all kinds of work, even skilled mechanical trades.

At the present time we have thirteen women employed in this line of work but it is the intention of enlarging facilities and going much farther in the manufacturing of electrical equipment used on cars. The women are under the direct supervision of Mr. Carl L. Hyde.



THE PACIFIC ELECTRIC MAGAZINE

Los Angeles, California

September 10, 1919

The Magazine is published on the 10th of each month. It aims to print matters of interest and information to employees. Items of general interest are solicited and should be addressed to THE PACIFIC ELECTRIC MAGAZINE, Pacific Electric Building, Los Angeles. Contributions should reach this office not later than first of each month.

NEW FACES IN THE BIG FAMILY

As a result of the strike that began on August 16th, many changes have taken place in the big Pacific Electric family; many of the former members leaving "home" on that date to make their way elsewhere, some of them no doubt regretfully, many of them with a "youthful assurance" of going out into the world to conquer it and make it subservient to his will and wishes; but alas, as with the youth leaving home, many will find that it was a siren call that will in the end leave them impoverished.

That the movement of August 16th was a regrettable occurrence in our family affairs, all will admit; but that the dissention of thought that had been going on for almost two years could result in nothing else, is also a recognized fact. In its inception, the breach in our former happy, contented family came about just as disturbances in domestic relations always come, or most always do, through the meddling of outsiders possessed of a desire to dominate affairs in which rightfully they have no part. Our past difficulties were not begun by a member of the Pacific Electric family, but by a paid disturber of the peace who ingratiated himself with a few members of our family and then proceeded to sow the seeds of discord among us.

Gone from the ranks of our company are many who have worked as team-mates for years and whose presence will be regretfully missed. Some of them may return after chasing the chimera and finding the emptiness of the bubble; after vainly pursuing an unknown quantity and wasting their accumulations of years; but their return will find them impoverished much as was the prodigal son of ancient days, only in this case there can be no fatted calf. They have already killed it. They must begin anew on the job and by endeavor again attain the place they surrendered voluntarily.

Coming to us now are many new men who recognize their opportunity as well as the desirability of becoming one of us. In the number are many who have just returned from service overseas in the army of Uncle Sam; many are experienced men from other cities who have long desired to secure employment in Southern California; a very large proportion are residents of our own city of Los Angeles and the cities surrounding it who knew from observation and from personal knowledge that the Pacific Electric was a most desirable company to work for and that Pacific Electric employes were desirable folks to associate with and they have cast their lots with us.

To them the Magazine extends a most hearty welcome. We want them to become imbued with "the family spirit" and take an active part in our domestic affairs as members in fact of this great family. We believe they will find life among us pleasant and will feel that they are indeed a part of our industrial and social fabric.

For a little time our social activities will be somewhat interfered with on account of the press of business affairs, but very soon the swing of events will be as usual; our Club life, camp life and other recreations resumed and the even tenor of our ways again taken up.

EMPLOYEES WHO CLIMB

In the course of a very interesting address to the employes of the Chicago, Great Western Railroad Company, W. L. Park, Federal manager of the property, points out that there are two kinds of co-operation the employe may render in the business of serving the public. One of these is, of course, the obligation resting upon every employe of any concern to render a specific service for a specific wage, or reward, under which the quality of co-operation rendered may be and frequently is, measured entirely by the amount received therefor. This, however, is not always true. There are some employes who pride themselves upon the fact that they render as little service as is possible and continue to hold their positions.

The other class of co-operation is that growing out of a genuine interest on the part of the employe in the

success of the concern employing him. This interest manifests itself without any thought of the compensation rendered therefor or without regard to the immediate personal advantage of the employe. It is displayed in the courteous treatment of patrons by the employe, in suggestions whereby service may be improved or through which the physical property of the employer may be protected. It is axiomatic that any concern must have loyal and efficient employes if it is to succeed, a principle that is as true in railroading as in merchandising. Most men who come to prominence in the industrial and commercial world owe their advancement to their discernment in the selection of helpers.

And, in the final analysis, who could be more directly interested in the success of a railroad, or of any other industrial or commercial concern, than the employe who serves

it? His daily bread depends for the time being at least, upon its ability to meet its weekly or monthly pay-rolls. Why, then, should he not be in duty bound to render whatever co-operation in the conduct of the business as will tend to make it more successful each recurring year? The employe who limits his service to the mere transaction of the prescribed duties in the contract of his employment and to the acceptance of the pay therefor seldom gets any higher on the ladder of industrialism than that. Those who climb into the highest positions on that ladder are they who are always willing and anxious to go outside, if need be, the mere terms of their employment in order to exhibit their pride and interest in the success of the concern they serve.—From the St. Joseph Gazette.

PE

ARCHIE BRAHM RETURNS

Archie Brahm returned to his post as Claim Agent for this Company on the first instant, after spending the major portion of sixteen months with the United States Army in France.

Mr. Brahm enlisted in the ranks as a Buck Private and was transferred with the Fifty-third Engineers within a very few weeks' time to Gievres, France, the location of the largest railroad shipping center operated by the American Expeditionary Forces. Because of his knowledge of American railway operating methods he was assigned to the Crew Dispatcher's Office in charge of disbursements where he remained until the termination of his stay in France, during which time he was graduated to the rank of Sergeant.

Having already performed twelve years of faithful service with this Railway Company Mr. Brahm comes back to his work and to his many friends grateful for the place which has been preserved for him and for the opportunity to resume its peacetime activities. Friends and fellow employes extend to him that glad welcome which we are pleased to accord every patriotic American.

PE

CAMP CLOSES SEPT. 14

According to schedule, our San Bernardino Mountain Vacation Camp will close on Sept. 14th, according to schedule, and the equipment packed into winter quarters. No plans have as yet been made for entertaining guests during the duck season, but announcement will be made in the next number of the Magazine relative thereto.

While the attendance at Camp this year has not been as large as previous seasons, owing to unforeseen difficulties, those who have had the opportunity to visit it on vacation report having had a most wonderfully happy time.

PE

"Does your wife take in washing, Sam?"

"No, sah. I takes in de washin', and I takes de washin' out. All my wife does is ter stay at home and do the washin', sah."

"CONDUCTORS, ALL DIVISIONS"

It is frequently found necessary to issue and sometimes re-issue, in bulletin form, instructions to passenger conductors, under the above heading, relative to application of tickets, fares, etc., and various matters pertaining to conductors' duties.

In many instances these instructions are entirely disregarded, causing many complaints to be registered by our patrons, which naturally brings discredit, not only upon the company, but also upon the individual conductor against whom such complaint is made.

It is, and always has been the policy of the Pacific Electric, to give our patrons the very best service in our power, and have, by this policy, gained an enviable reputation throughout the entire country, for service and courtesy shown our thousands of tourist patrons, who visit this section year after year, and who have complimented us, to their eastern friends, as having in our employe the most courteous and efficient set of trainmen of any railway, electric or steam, in this country.

It is with the object in view of retaining this reputation, that these bulletins are sent out to you, that you may study their every provision contained therein, and thereby avoid, if possible, giving our patrons any cause whatsoever to complain or find fault with the line of goods we have for sale, viz: "Transportation."

You, as conductors, have been selected as our salesmen, to meet the public, and unless you do so in the proper spirit, thoroughly understanding your business, and capable of talking it up intelligently, giving information and quoting rates that you know to be absolutely correct, and reliable, you cannot expect to gain the confidence and respect of your customer, and it is very often this first impression that stimulates a lasting friendship, between the salesman and customer, at the same time reflecting credit not only upon you, but upon the entire Pacific Electric Company, therefore these bulletins are to properly instruct you or refresh your memory along certain lines relative to your dealings with the people with whom you come in daily contact.

Do not misunderstand their mission, imagining that they are intended to heap unnecessary burdens upon you, but constant changes in conditions make it imperative that these instructions be issued, from time to time, and are a vital necessity when any misunderstanding of the rules of the Passenger Department exists, and are for the purpose of clearing up such matters in a way that you will avoid future complaints, and enable us to give to our patrons the class of service that has made the Pacific Electric famous. You are requested to give these matters close attention, and after reading your bulletins, suggest that they be filed away in some convenient place where you can refer to them if occasion arises,

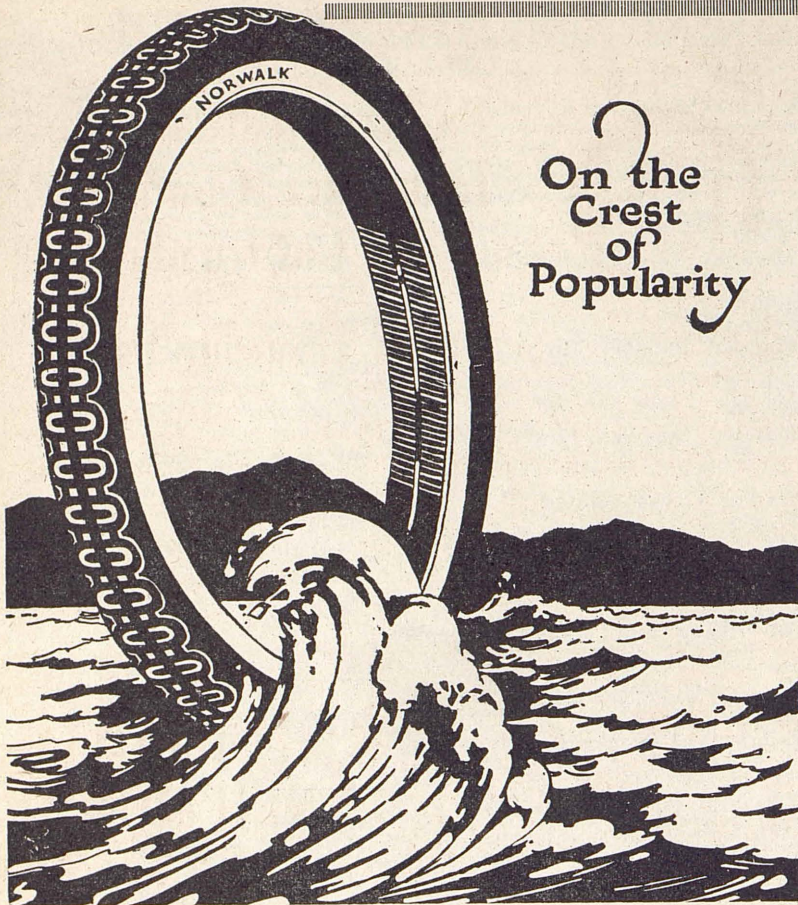
**PACIFIC ELECTRIC RAILWAY COMPANY
OPERATING REVENUES AND EXPENSES, TAXES AND ACCOUNTS
JULY, 1919.**

| | | |
|--|-----------------------|---------------------|
| Passenger Revenues | \$ 821,875.33 | |
| Freight and Switching Revenue | 239,354.95 | |
| Other Revenue | 48,566.99 | |
| Total Railway Operating Income | \$1,109,797.27 | |
| Operating Expenses | | |
| Way and Structures: | | |
| Wages | \$ 66,491.61 | |
| Material, Supplies, Etc. | 41,844.87 | \$108,336.48 |
| Equipment: | | |
| Wages | 76,287.99 | |
| Material, Supplies, Etc. | 37,274.44 | 113,562.43 |
| Power: | | |
| Wages | 19,955.67 | |
| Material, Supplies, Power Purchased, Etc. | 105,235.29 | 125,190.96 |
| Conducting Transportation: | | |
| Wages | 297,493.70 | |
| Material, Supplies, Etc. | 24,418.14 | 321,911.84 |
| Traffic: | | |
| Wages | 4,505.14 | |
| Advertising and Material, Supplies, Etc. | 814.28 | 5,319.42 |
| General and Miscellaneous: | | |
| Wages | 35,846.57 | |
| Injuries and Damages, Material, Sup- plies, Etc. | 44,533.30 | 80,379.87 |
| Total Railway Operating Expenses: | | |
| Wages as above | 500,580.68 | |
| Other charges as above | 254,120.32 | 754,701.00 |
| Transportation for Investment—Credit .. | 4,444.38 | 750,256.62 |
| Revenue Less Operating Expenses | | \$359,540.65 |
| Depreciation | \$ 19,920.90 | |
| Taxes Assignable to Railway Operations..... | 55,815.91 | |
| Total Depreciation and Taxes | | 75,736.81 |
| Revenue Less Operating Expenses, Dep. and Taxes..... | | \$283,803.84 |
| Non-Operating Revenue | | 11,040.15 |
| Net Revenue | | \$294,843.99 |
| Interest on Bonds and Other Dept | \$287,027.40 | |
| Rents and Miscellaneous Income Deductions..... | 36,831.10 | |
| Total Deductions | | 323,858.50 |
| Net Loss | | \$ 29,014.51 |
| Net Loss, 7 Months, 1919 | | 915,209.18 |
| Net Loss, 7 Month, 1918 | | 689,115.49 |
| Los Angeles, California, August 20, 1919. | | |

H. A. CULLODEN, Auditor.

ACCIDENT REPORT FOR AUGUST

| | Northern Division | | Southern Division | | Western Division | |
|---|----------------------|------|----------------------|----------|---------------------|------|
| | 1919 | 1918 | 1919 | 1918 | 1919 | 1918 |
| Interferences with vehicles..... | 51 | 78 | 49 | 52 | 61 | 58 |
| Collisions and interferences with cars..... | 3 | 8 | 2 | 10 | 6 | 8 |
| Persons struck by cars..... | 5 | 6 | 0 | 2 | 3 | 6 |
| Reraillments | 6 | 13 | 12 | 12 | 5 | 5 |
| On and off moving cars..... | 9 | 17 | 10 | 18 | 16 | 22 |
| Miscellaneous | 10 | 22 | 14 | 20 | 18 | 24 |
| | 84 | 144 | 87 | 114 | 109 | 123 |
| | | 1919 | 1918 | | | |
| Interferences with vehicles | 161 | 188 | 14.4% | Decrease | | |
| Collisions and interferences with cars..... | 11 | 26 | 57.7% | Decrease | | |
| Persons struck by cars | 8 | 14 | 42.9% | Decrease | | |
| Derailments | 23 | 30 | 23.3% | Decrease | | |
| On and off moving cars..... | 35 | 57 | 38.6% | Decrease | | |
| Miscellaneous | 42 | 66 | 36.4% | Decrease | | |
| | 280 | 381 | | | | |



On the
Crest
of
Popularity

Norwalk Tires

have never failed in meeting our claims.

Try one and watch your mileage cost drop.

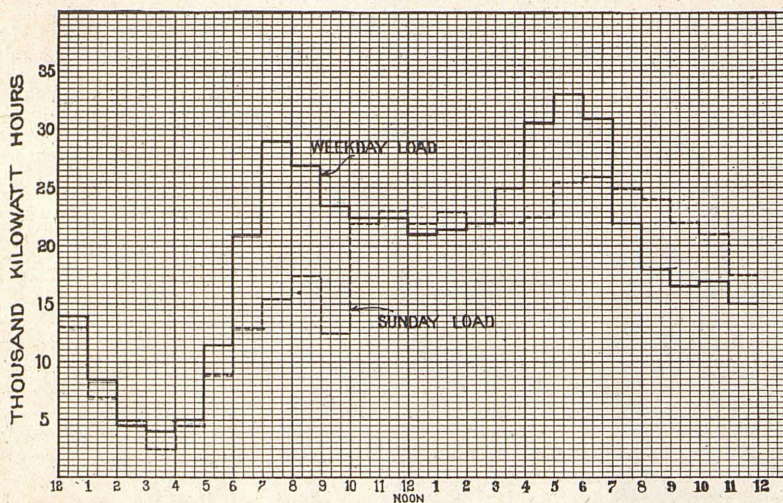
Factory Distributors:

Lichtenberger-Ferguson Co.

Cor. Pico and Hope Street.
LOS ANGELES

ELECTRICAL DEPARTMENT NOTES

L. H. APPEL, Associate Editor



POWER LOAD CURVES

THE POWER LOAD

The electrical energy requirements for the operation of an electric railway system are proportional to the load demands which unfortunately are not constant, as the volume of traffic carried throughout the day fluctuates between wide extremes. This wide fluctuation in the traffic load is reflected very clearly in the daily power load and in this connec-

tion it is interesting to examine a curve showing graphically the characteristics of a typical daily power load on the Pacific Electric Railway system. Curves for both a typical week-day and Sunday load are shown.

The daily power load varies from a very light demand during the early morning hours of the day to one which increases rapidly between 5:00 and 6:00 a. m. reaching the morning

peak invariably between 7:00 and 8:00 a. m. The load then gradually tapers off reaching its lowest midday point between 12:00 noon and 1:00 p. m., the load then ascends reaching the maximum hourly peak of the day between 5:00 and 6:00 p. m. After 6:00 p. m. the load begins to drop off rapidly as indicated in the figure.

On Sundays the load demand generally assumes characteristics as shown by the dotted curve. The total and hourly loads are considerably less for the Sunday load and the maximum peak drops to less than 80 per cent of the week day peak. Further it is to be observed that the Sunday morning peak occurs considerably later and that the afternoon peak remains practically steady between 5:00 p. m. and 7:00 p. m. before beginning to drop. A holiday load such as occurs on New Year's Day or the Fourth of July, displays characteristics similar to a heavy week day load rather than a Sunday load.

In conclusion, it is pertinent to point out that in order to provide for the requirements of the traveling public, it is necessary for the Pacific Electric Railway Co. to provide cars and substation equipment to meet the maximum traffic demands, although as is evident from an examination of the load curves that the equipment is not utilized to the fullest extent for the greater period of the day. In other words a heavy investment in equipment must lie idle the greater portion of the day in order to meet the demand of peak loads.

MORTUARY FUND REPORT

Death visited two of our families during the month of August, removing from our midst two of our oldest and most esteemed fellow-workers, much to the deep regret of all.

Payments on account of these two deaths from our Mortuary Fund were as follows:

Joseph Saleno, beneficiary Bes-sie Saleno, wife\$523.75
Grant Darling, beneficiary Ella B. Darling 523.75

TOLD AS IT WAS

The oldest good story is the one about the boy who left the farm and got a job in the city. He wrote a letter to his brother, who had elected to stick by the farm, telling of the joys of city life, in which he said:

"Thursday we auto'd out to the country club, where we golfed until dark. Then we trolleyed back to town and danced until dawn. Then we motored to the beach and ridayed there.

The brother on the farm wrote back:

"Yesterday we buggied to town and baseballed all afternoon. Then we went to Ned's and poked till morning. Today we muled out to the cornfield and ge-hawed until sun-down. Then we suppered and then we piped for a while. After that we staircased up to our room and bed-steaded until the clock fived."—San Francisco Argonaut.

Equal, No Favor

"I suppose," said a lady to a trolley car conductor, "if I pay the fare for my dog he will be treated the same as other passengers, and be allowed to occupy a seat?"

"Of course, madam," the conductor replied politely, "he will be treated the same as other passengers, and can occupy a seat provided he does not put his feet on it!"

A North of Ireland man wanted to send a telegram to a friend in a remote part of the island. The clerk told him the charge would be one shilling and six pence.

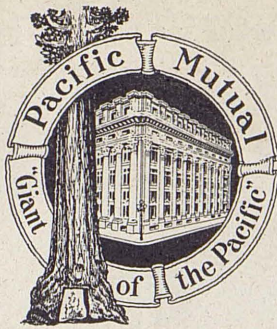
"How do you make that out!"

"Sixpence for the wire and a shilling for delivery outside the radius." "That be hanged!" retorted the Irishman. "You send the telegram and I'll write and ask him to call for it."—Boston Transcript.

An enterprising electric firm is now doing a thriving business furnishing the equipment to discharged soldiers with which to transform their steel helmets into excellent indirect lighting fixtures.

The only place a chance-taker can find sympathy is in the dictionary. Don't be a jay-walker. When you take a chance you are either killed or just injured. Which do you prefer? —B. C. "Buzzer."

"What are you laughing about?" "Now that peace is here I'm thinking of the poor guys who got married to escape the draft."



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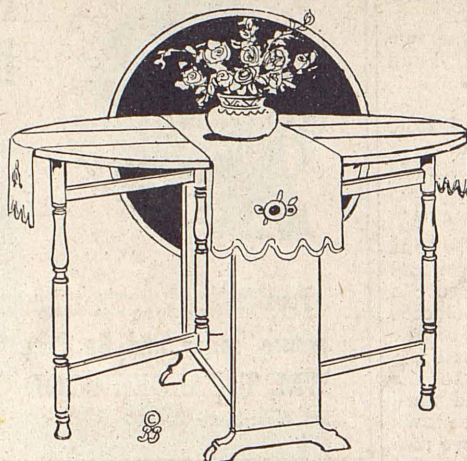
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