

EARLY ELECTRIC INTERURBANS IN OREGON

RANDALL V. MILLS

II. *The Oregon Electric and Southern Pacific Systems**

THE BUILDING OF electric railways became a kind of mania in Oregon, and generally in the United States, during the first decade of the twentieth century. In Oregon two new systems sprang into existence: the Oregon Electric Railway Company, together with its eventual subsidiary, the United Railways; and the Southern Pacific's electrification, known at first as the Portland, Eugene and Eastern Railway. Unlike most of the others, these two were actually built and operated. Had all the projected lines been built, the roads would have hung out over Oregon's borders like a metallic fringe.¹

As early as 1904, the Portland, Salem and West Side Railway Company revived talk, begun in the 90's, of building along the west bank of the Willamette toward Salem.² At the same time the Portland Southern Electric Railway Company incorporated to build a line paralleling the Southern Pacific between Portland and Salem.³ A year later, the latter company dropped out of

*Part I of Mr. Mill's article appeared in the March number.

¹Thus the Coos Bay, Railway and Terminal projected lines to surrounding towns in 1908; in 1909 the Coos Bay, Oregon and Idaho planned to build to Boise. The Wasco County Electric and Water Power Company intended to link Condon with Arlington, Madras and Bend; the Portland, Baker City and Butte expected to build via the Clackamas to Montana and to connect with the Inland Oregon Electric Railway which would run through Condon to Canyon City; the Oakland and Tidewater planned a line to Empire, and the Albany Interurban promoted lines to Corvallis, Sweet Home, Lebanon, and Brownsville with an ambitious extension reaching Sutherlin. The Willamette Pacific, a Eugene project, finally became the Marshfield branch of the Southern Pacific; both the California and Oregon Coast and the Oregon, California and Eastern were originally projected as electric interurbans.

²*Journal of Electricity, Power and Gas*, XIV (August, 1904), 278.

³*Street Railway Journal*, XXIV (September, 1904), 400.

notice, but the P.S. & W.S., though it had laid no track, announced that Eugene, not Salem, would be the southern terminal. Nothing more came from the project. Shortly thereafter, however, the Oregon Traction Company organized to build along the west side route and also to run lines to St. Helens and Forest Grove.⁴ In 1905 the company began grading in Portland but it, too, after announcing that it would reach Eugene, disappeared. The idea reappeared under the name of the Oregon Electric Railway Company, incorporated May 15, 1905, and backed by eastern capital.⁵

The Oregon Electric was to be frankly a railroad, operated by electricity, and nothing more. Its power would be purchased from established utility companies; it would dabble in no land sales; it would concentrate its efforts to operate a line equal in every way to the best steam railroad practice and standards of construction, equipment, and service. Clearly, its backers, Moffat and White of New York, meant business. Very shortly, engineers of W. S. Barstow and Company arrived in Portland to begin construction.

The Oregon Electric immediately faced a problem in locating a practicable line out of Portland. On the East Side, the Oregon Water Power skirted the river bank and then climbed by an easy grade to the heights at Sellwood. On the West Side, the Southern Pacific had steam tracks on two possible routes. Along the river, tracks occupied the old line of the Portland and Willamette Valley from the levee to Oswego. On the slope of the hills the old West Side line wound its way to a shoulder where it turned inland past Bertha. Between these two lines, the Oregon Electric had to find its own route—out of Portland along the line of the long-abandoned City and West Portland Park Motor Railway, up the easy intervening grade to a low pass through the hills south of Bertha. Although the line climbed to 450 feet, it still was 150 feet below the Southern Pacific's track at the crest, and beyond the summit would be fairly level. From Wilsonville to Salem a tangent almost without ruling

⁴*Journal of Electricity, Power and Gas*, XV (February, 1905), 65.

⁵"The Oregon Electric Railway System," *Electric Railway Journal*, XXXIII (March 20, 1909), 494. The original name of the road had been the Willamette Valley Traction Company.

BURLINGTON NORTHERN (OREGON-WASHINGTON) INC.
Office of Corporate Secretary

Portland, Oregon
March 1, 1983

Directors:

William W. Francis
Robert F. Garland
Lawrence D. Silvernale
William F. Thompson

Officers:

W. W. Francis	President
R. F. Garland	Vice President
J. R. Galassi	Vice President
J. B. Parrish	Vice President, Finance
R. M. Gleason	Vice President, Marketing & Pricing
D. E. Engle	General Counsel
C. C. Roberts	Controller
W. V. Currie	Secretary
W. R. Montgomery	Treasurer
R. J. Morin	Assistant Secretary
R. U. Stowman	Assistant Treasurer
W. F. Thompson	General Manager

Executive Committee:

W. F. Thompson
Alternate: L. D. Silvernale

R. F. Garland
Alternate: W. W. Francis

Registered Agents:

W. V. Currie	Oregon
L. D. Silvernale	Washington

Wm. V. Currie
Secretary

BURLINGTON NORTHERN (OREGON-WASHINGTON) INC.
Office of Secretary

Portland, Oregon
March 1, 1982

Mr. I. C. Ethington
President

Restated for informational purposes are a series of events which led to formation of Burlington Northern (Oregon-Washington) Inc. and establishment of Burlington Northern Railroad Company as the parent line in Burlington Northern Inc.'s operations:

- 11/01/79 Ruth Realty Company merged into Oregon Trunk Railway,
- 11/01/79 Spokane, Portland and Seattle Railway Company merged into Burlington Northern Inc.,
- 4/01/81 Oregon Trunk Railway merged into Oregon Electric Railway Company,
- 5/14/81 Holding Company created and identified as Burlington Northern Inc., and name or railroad portion of the corporation changed to Burlington Northern Railroad Company, and
- 5/18/81 Burlington Northern (Oregon-Washington) Inc. adopted as corporate name of the Company's wholly-owned subsidiary, Oregon Electric Railway Company.

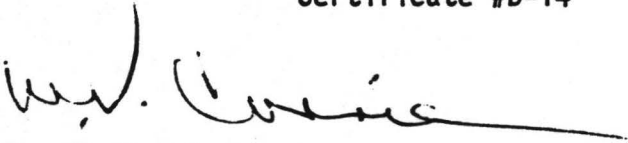
As a consequence of a portion of these activities, all shares of the capital stock of Ruth Realty Company, Spokane, Portland and Seattle Railway Company and Oregon Trunk Railway were recalled and were properly cancelled on the books of the various companies. As of the date and time of the name change from Oregon Electric Railway Company to Burlington Northern (Oregon-Washington) Inc., the number of shares of capital stock outstanding, the number of shares entitled to vote, designation of the shares of any class or series entitled to vote as a class or series, and the number of shares of such classes were:

Total Number of Shares Outstanding	Total Number of shares en- titled to Vote	Designation of Class or Series Entitled to vote as a Class or Series	Number of Shares of such Class or Series
19,500	19,500	Common	19,500
2,000	2,000	Preferred	2,000
3,800	3,800	Deferred	3,800

It is only prudent we now proceed to cancel shares currently outstanding and issue the same number of shares in the name of Burlington Northern Railroad Company. Mr. Frank S. Farrell suggests our overall best interests would be served if the issuance date of the reissued certificates by May 15, 1981. All known conditions are compatible with such action. You were elected president of Oregon Electric Railway Company on April 13, 1981, consequently, you were president of the company on effective date of reissuance, and I have been secretary of said company for a number of years, so our respective signatures on the certificates are proper.

I have issued the following certificates, one for each class of stock and am presenting these certificates to you for your signature as president and return to me for my signature as secretary and affixing of the corporate seal.

Certificate #C77	- 19,500	common
Certificate #NY-315	- 2,000	preferred
Certificate #D-14	3,800	deferred



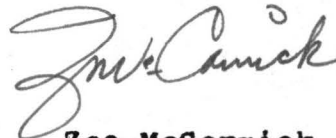
Wm. V. Currie
Secretary

WVC:pd
Att

cc-Mr. R. J. Morin

ACKNOWLEDGMENT

The following is a Chapter I have long wanted to put on paper. In addition to my happy memories of the Oregon Electric Railway, it is through the courtesy and generosity of ~~the Burlington Northern Railroad Company~~ and Mr. William V. Currie that research material and pictures were made available for my use, thereby making it possible for me to write this chapter. To ^{him} ~~them~~ I extend my sincere appreciation.


Zoe McCormick

*Draft
not edited*

OREGON ELECTRIC RAILWAY
1905-1933

While we were planning and building our new home on French Prairie in 1906, a great advancement was coming to the Willamette Valley with the advent of the Oregon Electric Railway making its way between Portland and Salem.

The Oregon Electric Railway trains of bright orange coaches had their beginning here as they whistled and clattered their way through this beautiful valley of prairie, forests, and productive farm lands--a valley 60 miles wide and 150 miles long. However, the distance between Portland and Salem covered but 50 miles of the valley.

The year was 1905. Under the date of December 11, Salem's Capital Journal newspaper carried a story headlined "Dirt Throwing Days." About 7:00 A. M. on that foggy morning, work had started on the new Portland Electric Railroad at the junction of the Fairgrounds Street car line with Cottage Street. As I write this, 77 years have passed into history since that memorable date.

Backed by Eastern capital, the Oregon Electric Railway Company was incorporated May 15, 1906. Clearly, the backers, Moffat and White of New York, meant business. Very shortly engineers of W. S. Barstow and Company arrived in Portland to begin construction.

OREGON ELECTRIC RAILWAY COMPANY

The Oregon Electric Railway Company was incorporated under the general laws of the State of Oregon on May 15, 1906, by Thomas Scott Brooke, H. S. Corbett and R. W. Lewis, with capital stock of \$2,500,000. The purpose of the corporation was to construct or otherwise acquire a line of railroad extending from Portland through Salem, the capital of the state, to Roseburg, Oregon, with various branches. The articles of incorporation were amended on April 22, 1908, to provide for an increase of capital stock to 100,000 shares, divided into 50,000 shares of preferred stock at \$100 per share. And again, on October 15, 1909, so as to authorize the issuance of 4000 shares of deferred stock, par value \$100 per share. The stock authorized, issued and outstanding is as follows:

	<u>Common</u>	<u>Preferred</u>	<u>Deferred</u>	<u>Total</u>
Authorized	\$5,000,000	\$5,000,000	\$400,000	\$10,400,000
Issued	2,500,000	580,000	380,000	3,460,000
Surrendered and cancelled	550,000	380,000	0	930,000
Outstanding	1,950,000	200,000	380,000	2,530,000.

The directors on May 4, 1908, authorized the issue of \$10,000,000 first mortgage 5% 25-year gold bonds, to be dated May 1, 1908, and secured the issue by a mortgage of all properties, plants and franchises of the company, owned or thereafter to be acquired. By meeting of May 29, 1909, resolution was adopted instructing the trustees to authenticate and to turn over to the company for its use \$2,000,000 First Mortgage bonds. These bonds were received by the company and were delivered to the Willamette Construction Company in part payment of cost of its railway lines. These bonds constituted the entire issued by the Company. They have been acquired by the Spokane, Portland and Seattle Railway Company.

The property was acquired February 2, 1910, by the Great Northern Railway Company through the purchase of practically all of the capital stock. On June 6, 1910, one-half interest was acquired by the Northern Pacific Railway Company. On March 3, 1911, all of the above mentioned stock was assigned to the Spokane, Portland and Seattle Railway Company and is still held by that company.



Number
 N.Y. 485

Shares

OREGON ELECTRIC RAILWAY COMPANY
 PORTLAND, OREGON.

INCORPORATED UNDER THE LAWS

OF THE STATE OF OREGON.

This is to Certify that

is the registered holder of shares of the Preferred Capital Stock of Oregon Electric Railway Company, transferable only upon the books of the Company by the registered holder hereof in person, or by attorney thereto authorized in writing upon surrender of this certificate properly endorsed. This stock is part of an authorized issue of 102,000 shares of the par value of \$100 each, of which 50,000 shares are authorized as preferred stock, 50,000 shares are authorized as common stock, and 2,000 shares are authorized as deferred stock; and the certificate holder hereof is entitled to receive first priority dividend of six per centum payable half yearly before any dividend shall be paid on any other class of stock, which dividends on the preferred stock shall be accumulated after February 1, 1911. The preferred stock of the Company has equal voting power, share and share alike with the common stock, and with the deferred stock, except upon the question of the redemption of the preferred stock upon which question neither the preferred stock nor the deferred stock has voting power. The preferred stock, or any part or parts thereof, may from time to time at the discretion and upon a majority vote of the holders of the common stock be redeemed on any first days of February and August at the price of \$115 per share and all dividends accumulated and unpaid thereon, provided that not less than sixty days notice in writing of such redemption shall be given to the then holders of record of the preferred stock to be redeemed in the manner prescribed in the by-laws of the Company for the benefit of such stockholders. Upon the dissolution or liquidation of the corporation or other distribution of its assets, the preferred stock then outstanding shall be entitled to receive \$115 per centum of the par value thereof together with all unpaid accumulations thereon, before any amount shall be paid on any other class of stock; and the common stock and deferred stock shall be entitled to receive all assets, if any remaining after such payment of the preferred stock.

full paid and non-assessable

This certificate is not valid until countersigned by the Transfer Agent of the Company and the signatures of its duly authorized officers

Without the seal of the Company

this _____ day of _____ 19__



THIS CERTIFICATE IS TRANSFERABLE EITHER IN NEW YORK OR IN PORTLAND.

COUNTERSIGNED
 COLUMBIA TRUST COMPANY NEW YORK

SHARES \$ 100. EACH.

AND THE ANTI TRUST NOTE COMPANY NEW YORK

On August 20, 1906, a steam construction locomotive pulling two flat cars cautiously chugged up High Street. In order to meet the deadline date for completion of the work, construction crews were making history to avoid a pending injunction suit. Record-making time had been made through Salem. A full construction crew distributed and laid railroad ties on High Street between State and Trade streets, a distance of two blocks, in 18 minutes.

The most difficult piece of construction would be the necessary bridge across the Willamette at Wilsonville. Graders and bridge-building crews set to work from both the Portland and the Salem ends of the survey.

Between August of 1906 and September of 1907, the Willamette River rose to flood seven times, once reaching 40 feet above normal at the bridge site. Since the river was navigable, the bridge had to be provided with a draw or be at least 45 feet above high water. It was then that the Oregon Electric decided on the high fixed-span type, consisting of three steel trusses each 810 feet long and tall wooden trestle approaches--resulting in a bridge nearly a mile long. The piers rested on rock far below the surface of the river. Construction was slow. Finally, on November 19, 1907, track crews working both from Portland and Salem brought the rails to a meeting near Tigard and drove the

last spike without ceremony. Track men tossed their hats into the air; officials tossed down a few drinks; but there was no general celebration. Barstow and Company of New York had built the entire line through its full length of 50 miles at a cost of approximately two million dollars. From the fourth of October, crews in work trains shuttled timorously over the soft track.

An engineering triumph had indeed reached our valley when on January 1, 1908, an inspection trip was run by one of the new electric cars, the first electric car to operate over the line from Portland to Salem, a distance of 50.7 miles. The trip required three hours under low power, due to the soft wobbly road-bed, but the time would come when the grade would settle and faster speeds would be possible. Also on that January 1, 1908, the line was turned over to the Oregon Electric Railway Company. The first through passenger train from Portland arrived in Salem on January 20, 1908. Conductor Smith was in charge and the car was crowded for standing room. The round trip fare was \$2.75.

With the building of the Oregon Electric Railroad, the tracks cut across one corner of our farm, leaving a small tract of land, about two acres, on the opposite side of the track. Since it all happened so long ago, it is not possible for me to remember what arrangements were made with the farmers regarding payment for the railroad right-of-way.

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The railroad track crossed the public road a half-block from our home, but walking the track it was a mile either way to boarding stations at St. Louis on the North or Concomly on the South.

For a number of years, the Salem depot was at Mill and High streets. Completion of the Hubbard Building, at High and State Streets, about 1911 saw the depot relocated there. The Hubbard Building is now known as the Oregon Building.

Stations north of State Street in Salem were Hood Street, Highland Avenue, and School for the Deaf. Continuing north were Quinaby, Chemawa, Waconda, Chemeketa (now known as Hopmere), Concomly, St. Louis, West Woodburn, and various other stops on into Portland.

Service opened with two daily runs each way between Portland and Salem. Therefore, in the beginning Oregon Electric equipment consisted of eight bright orange wooden coaches built by Jewett and fitted with baggage, smoking, and regular compartments. Soon, six new passenger coaches were added to the runs. Each coach was 57 feet, 8 inches long. Similar in design to the Jewett coaches, these six new coaches were built by Niles.

By 1909 the line had become a first-class railroad with a 3-cent-a-mile fare and \$2.00 excursion rates between Portland and Salem round trip on week-ends. This was when city

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folk were off to visit relatives and friends. And in good weather others were on their way with family and picnic baskets in tow. Local trains traveled at the rate of 20 miles per hour, and the "Limited" averaged 33 miles per hour.

The "Supreme Court Limited" left Portland daily at 8:00 A. M. and arrived in Salem at 10:00 A. M., just in time for lawyers to be on hand when the Oregon Supreme Court opened its morning sessions. The "Capitol City Flyer," when South-bound, left the Jefferson Street station in Portland at 9:15 A. M., arriving in Salem an hour and 35 minutes later. When the same train was North-bound, it was called the "Rose City Flyer."

During the first full year of operation the Oregon Electric grossed \$298,694, and in the second year the income rose to \$474,867.

It was becoming clear that the original equipment was over-worked. To relieve the shortage, the company in 1910 ordered a whole fleet of new equipment. Oregonians gaped in awe at the new observation cars which were added at that time. Each car, always the rear car of the train, was 62 feet long.

The observation cars "Champoeg" and Sacajawea" had roomy open platforms covered by a monitor and dome with gay striped awning. Around the platform on each of the cars was an elaborate grill and polished brass rail that glistened in the

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sunlight as the train passed through the valley. These two elegant coaches featured a tiny, perfectly appointed kitchen, presided over by a capable cook and a porter who prepared and served delicious buffet lunches. For 35 cents extra fare travelers had the privilege of luxuriating in the Champeog and Sacajawea, two of the nation's few interurban observation cars. Furnished with chairs instead of the usual two-passenger seats, these observation cars were also known as parlor cars.

Scenery watching was an interesting part of any trip as the train made its way through the valley's countryside. However, the more hardy souls did rubberneck from the open platforms of those two plush observation cars. The patrons were enjoying the "no-soot--no cinders" way of travel. The well-ballasted roadbeds also gave a smooth ride, even toward the end of its life as a passenger railroad. It was later learned that the "Champeog," the deluxe parlor car, had served on the Pacific Great Northern Railroad, British Columbia, before being placed on the Valley route here.

As children, when we heard the clickety-clack of the oncoming train, it was like music to our ears. We had our exercise and I'm sure wore out much shoe leather as we ran to see those orange-colored trains go by our home. The grandeur of the Parlor cars was awe-inspiring, leaving us with the thought that that was a ride to be enjoyed only by the wealthy.

Also, there was the caboose on the end of the freight train that generated considerable attention. It was my wish to ride in one, and I even envisioned having one for a playhouse. It was my pleasure always to have an interesting playhouse, but you can well guess it was not a caboose.

Under the capable supervision of our dad, my two brothers built a wagon, to which they harnessed their two large dogs. The boys would ride in the wagon, but if the dogs heard a train coming, they would start down the road as fast as they could go toward the tracks, a distance of about a half-block. Thankfully, the train traveled a little faster than they did.

Long before the arrival of the Oregon Electric, there were other trains in the Valley. The Southern Pacific Railroad passed through the towns of Hubbard, Woodburn, Gervais, and many other small towns between Portland and Salem. With the advent of the Southern Pacific, St. Louis had become a town of the past and all stores and industry had been moved to Gervais about two miles east of St. Louis.

With the Oregon Electric Railway serving the Valley so ably with its passenger and shipping services, St. Louis made somewhat of a comeback in 1910. This was the time when our uncle, Arthur Goffin, and a neighbor, Brentford Miller, known as "Goffin and Miller," built and began operation of a grocery

and general merchandise store, livery stable, and train depot at a site adjacent to the Oregon Electric tracks. The ticket office was located in the grocery store. The railroad was located a quarter-mile east of old St. Louis.

A short time later one of the largest grain shipping warehouses in this vast area of the Willamette Valley was built at St. Louis, and all shipping was done by the Oregon Electric. The store and the warehouse were part of the community for many years.

Several acres of land adjoining the store were plotted for home sites and streets. However, only one home was built, that by the local saloon keeper, Bart Aplin, for his bride, the former Louise Du Bois. The saloon was just across the tracks from the train station, a distance of about 60 feet. This town site was vacated many years later.

Altogether, the Oregon Electric was potentially a prosperous, well-built electric railway that adapted its service to the needs of the country through which it ran. All eyes were on it, including those of James J. Hill. The Oregon Electric, possibly to its own surprise, soon became a pawn in the game of high finance and railroad strategy. Hill's interests acquired the Oregon Electric February 2, 1910, through acquisition by the Spokane, Portland, and Seattle Railroad. RAILWAY COMPANY.

With the change of ownership came other changes. One change in the appearance of the interurban was the painting of all coaches to a somber green-black instead of the original bright orange color. I always thought, even as a small child, that the orange color of the coaches made them unique, and I felt that everything in railroading did not have to be the same, just for the sake of conformity.

Hill announced that he would extend his Oregon Electric railroad immediately to Albany, Eugene, and way points. Service was extended from Salem to Albany on July 4, 1912. Then the line south from Albany was completed, and the train rolled into Eugene on October 17, 1912.

In 1913 two plushy sleepers, the "Santiam" and the "Calapooya," were added to the line for service on the "Owl," the night train which ran both ways between Portland and Eugene. The "Owl" from Eugene passed through Salem at 4:35 A. M., and passed our home about 5:15 A. M., on its way to Portland.

The sleepers were furnished inside in handsomely figured mahogany with inlaid lines and marquetry figures in neat design. The seats were upholstered in figured frieze plush. Floor covering in the main compartments was Wilton Carpet. And the ceilings were decorated in green and gold. That was a time when stepping out of a small way station on a cold, rainy night into such elegance was like a new way of American

life. It was a comfort that did not last long. The sleeping cars were a rarity for electric interurbans in those days. Those cars ran between Portland and Eugene on the night expresses each way between 1914 and 1918.

By deed dated February 11, 1910, the Oregon Electric acquired in completed condition from the original constructor the Valley Railway Company, the 2.6 miles of line between West Woodburn and Woodburn. This was the first time the company had acquired a road bed already built by another railway company. That branch road went into operation on March 27, 1910. Passenger service on that Woodburn branch line was abandoned June 13, 1926, and freight service was abandoned August 14, 1928. The tracks were finally removed December 21, 1929.

By 1913 the Oregon Electric had acquired status equal to any electric line in the nation both in service and in equipment. That same year, 1913, saw the following daily train operations: eight north-bound trains to Portland; ten trains going to Salem, all traveling on High Street in Salem; seven trains continuing on to Albany; and five proceeding on to Eugene.

For many years during the Oregon Electric passenger train days, our grand old Marion Hotel was in its "heyday." First to greet passengers at the Salem depot was a "colored" porter, as blacks were referred to in those days. The porter would

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arrive at the State and High Street depot with a large cart. Upon arrival of the train, his first welcome was "Marion Hotel! Anyone for the Marion Hotel!?" Those wishing to go to the hotel would deposit their bags with the porter, and he would deliver bag and baggage and escort prospective customers to the hotel, a distance of one and one-half blocks.

In its peak year of 1920, the Oregon Electric grossed \$891,000 in passenger earnings (fares). By 1932, the last full year of passenger operation, the earnings had shrunk to \$17,313.

Even though the Oregon Electric had developed into plushy elegance of national distinction, it then declined as automobiles and busses became competitive. The colorful quarter-century of the fine Oregon Electric service was crushed under the wheels of the fast-moving auto-bus service that had arrived in our Willamette Valley traveling on hard-surfaced roads.

In Salem, May 13, 1933, was the day, and the hour was 4:00 P. M. That was when Conductor Jim Bilbry told Brakeman George Meyers to get aboard or he would miss the train. Motor-man Jim Judy gave her the juice, and Salem's last regular Oregon Electric passenger train rolled northward into history. No "fare" boarded the two-coach train. The two-car standard train that pulled into Portland's Jefferson Street station on that May date brought to an end an era in electric railroading.

On this last run it was not necessary for the brakeman to put out the "milk stool" and to call "All aboard!" nor to make the last hand wave to the motorman.

The demise of the Oregon Electric brought to an end a quarter century of service that was termed by the company as "the road of courtesy and service." It was indeed a sad day, and there was no eulogy or farewell for the Grand Old Oregon Electric. It was well known that no serious accident had marred the service or the reputation of the Oregon Electric Railway. It had maintained a fine record for a great railroad in its 25 years of service.

It was not generally known, but the railroad was not built with freight transport in mind. It was built exclusively for a deluxe passenger road on a private right-of-way. However, later all that was changed.

After May 13, 1933, the line was used for freight only under electric power. On July 10, 1945, electric power was discontinued. The company had contracted with the Portland Railway Light and Power Company for electrical power. The contract was in effect until 1948, and at that time the electrical overhead equipment was removed and Diesel power was then used. The line's first Diesel train passed through Salem on May 21, 1948. Today the line is used for freight only. The tracks were long ago eliminated from High Street in Salem.

After the Oregon Electric and all its services faded into the past, many of the lovely old farm homes and friends we knew so well were no longer to be seen as we drove around the countryside. People were moving into the cities.

Also, there was little need for the villages that had sprung up around the train stations and depots, so they too ceased to exist. One finds that many changes come and go in the span of a few short decades.

The railroad is now owned and Diesel-operated as a freight line by the Burlington Northern Railroad Company, with a Salem office and headquarters in Portland.

We lived the electric railway era from its inception, and it was sad indeed to see it end in the short span of 25 years. The Oregon Electric had been a part of our lives, and even with progress it is hard to part with the things we have grown to know and enjoy.

In our book of memories it is no doubt safe to say that with the end of the electric railway era, those years of glory will never be forgotten by those of us who experienced them. I knew then that the grand old Oregon Electric was something future generations would only read about.

I'm sure, had I been there on that May 13th in 1933 when passenger service came to an end, I should have had to wipe a tear or two from my eyes. And I still recall the stab of

nostalgia that accompanied my reading of the following excerpt from a story initially published some 45 years ago in the Gervais Star newspaper and reprinted in the Woodburn Independent February 20, 1969:

"Wm Hall has just finished tearing down the old St. Louis depot, it being the last vestige of a former railway station there, the Oregon Electric having ceased to run passenger trains over that line a few years ago."

The Oregon Electric is a thing of the past, but the magic lingers in memory.

grade would be followed.⁵ The most difficult piece of construction would be the necessary bridge across the Willamette at Woodburn. Confidently, graders and bridge-building crews set to work from both the Portland and the Salem ends of the survey.⁶

Between August of 1906 and September of 1907, the Willamette River rose to flood seven times, once reaching a crest 40 feet above normal at the bridge site. Since the river was navigable, the bridge had to be provided with a draw or be at least 45 feet above high water. The Oregon Electric decided on the high, fixed-span type, of three steel trusses each 810 feet long, and tall wooden trestle approaches, making a bridge nearly a mile long. The piers rested on rock far below the surface of the river. Time after time the whole structure was endangered as high water brought down logs and driftwood against the false-work.

Construction was necessarily slow as a result. Even after grading had been done, track could not be laid on the soggy roadbed. Finally, in the fall of 1907, track crews working both from Portland and Salem brought the rails to a meeting near Woodburn and drove the last spike without ceremony. To hasten construction, the Barstow Company used two steam locomotives on construction trains and erected enough overhead in Salem so that one of the new electric locomotives could be put to work there.⁸

From the fourth of October, work trains shuttled timorously over the soft track. On January 1, 1908, an inspection trip was run by one of the new electric cars. Over the wobbly roadbed, the trip required three hours, but by spring, when the grade settled, the time might be cut to an hour and 45 minutes.⁹ With this official opening of service, two daily trains, leaving

⁵*Ibid.*

⁷*Ibid.*, 495.

⁸*Weekly Capital Journal* (Salem, Oregon), October 30, 1907. The Barstow Company leased two locomotives, one from the O.-W. R. & N., and the other the Southern Pacific 2141, a ten-wheeler built in 1888. During the time they were used in construction work they were given the numbers 32 and 33 in the roster of the Oregon Electric.

⁹*Ibid.*, January 2, 1908.

the terminals at eight in the morning and two in the afternoon, went into operation. Freight service was scheduled to begin at the end of February.¹⁰

Equipment was the best obtainable. The cars, when they arrived, were the heaviest interurbans in Oregon. Eight wooden combination motor cars, built by Jewett, fitted with baggage, smoking and regular passenger compartments, all painted a gay, bright orange, handled the business. Each car was 57 feet, eight inches long, with a low monitor roof curving gracefully down at the ends. The windows were paired under arched, art-glass transoms; the seats were plush; and the interior finish was a pale green that set off the dark mahogany wood trim.¹¹ Freight was hauled in regular box cars behind two steel steple-type locomotives, built by the American Locomotive Works and fitted with General Electric equipment, as was standard to the company.¹²

Before the first year of operations had passed, the original fleet proved to be insufficient to handle the traffic. Six new passenger coaches, built by Niles but similar in design to the Jewetts, went into service. From the Niles Works, also, came two express-motors, in outline resembling the coaches, but fitted for baggage, light package freight, and express.¹³ The Oregon Electric was having growing pains. Even before the first trains operated, the company announced plans for extension. First would be a line to Forest Grove, branching at a station on

¹⁰*The Oregonian*, January 24, 1908.

¹¹These cars, numbered 50-58, were mounted with four GE-73 motors and weighed 42 tons. Originally the entire line was operated at 600-volts; in 1912 the line was reconstructed to 1200-volts south of Garden Home, and two of the GE-73 motors were replaced by GE-205 motors. See W. C. Campbell, "The Oregon Electric Railway, a 1200-Volt System," *General Electric Review*, XVI (November, 1913), 793-801.

¹²Numbered 1 and 2, they were built by GE-Alco in 1907, carried four GE-55 motors, and weighed forty tons. These locomotives are still in service.

¹³Passenger motors, numbered 100-105, were fitted with MU-control and were used as trailers with the combination motors. The express cars had four GE-66 motors, and were numbered 150 and 151. Later two GE-222 motors replaced a pair of the GE-66, and the cars were renumbered in the 900-series. In 1909, two work motors, numbered 30 and 31, both built by Niles, went into service, but by 1914 they had been scrapped, having been used mainly in construction work.

the main stem, called Garden Home. Construction work began in the summer of 1908 so that by late fall the long projected electric road into the Washington County was in operation. Late in December, 1908, W. S. Barstow, of the construction company, announced that the road would be extended from Salem, reaching Albany, Eugene and eventually Roseburg. Guy W. Talbot, vice president and general manager of the railway, speaking at Albany, said a local system would be built there and extension to Eugene was a certainty, although the building would be done in short sections from town to town as business increased. With the Welch interests, active in Eugene, the Oregon Electric now had no connections, he added.¹⁴

Talbot had reason to mention the activity of Mr. Alvadore Welch, at the moment centering his operations in Eugene. A born promoter of utilities, he had been at one time or another connected with the building of power plants and railways in Washington and Oregon, and he had been active in getting the Oregon Electric into Salem. In 1908, however, he was busy on what was to be his grandest project—the Portland, Eugene and Eastern Railway.

Eugene had ambitions. In 1904 the Willamette Valley Electric Railway satisfied the civic pride by incorporating to build a network of interurbans through Lane and Benton counties. The plans were grandiosely normal, including a proposed extension to Coos Bay, and the total costs would reach five million dollars.¹⁵ Power would come from the company's own generators to be located at Martin Ferry on the McKenzie River. When the Willamette Valley Electric was organized, Welch was manager of the Citizens Light and Traction Company of Salem, but in 1905, acting for Rhodes, Sinkler and Butcher of Philadelphia, he took over the plant of the Lane County Electric Company at Springfield and looked about for more worlds to conquer in his name and the name of his backers. During 1906 he added the Willamette Valley Electric Railway

¹⁴*Eugene Weekly Guard*, April 2, April 9, 1909.

¹⁵*Street Railway Journal*, XXIV (September, 1904), 400. The recurrence of the name "Willamette Valley" leads to confusion, and the Willamette Valley Traction, Willamette Valley Electric, Willamette Valley Southern, and Willamette Valley Railway had, except for the last two, no inter-connections.

Company to his holdings and promptly proposed to do something about the somnolescent corporation, for nothing except talk had been done in three years. Welch put surveyors to work, staking a local line in Eugene, a suburban extension to Springfield, and a route up the McKenzie. He was ready to begin laying track, except for Eugene's squabble over the paving of Willamette Street.

Then, before the Willamette Valley did any construction, Welch incorporated during July of 1907 a new company, the Eugene and Eastern Railway, to build railways in the vicinity of Eugene, and transferred to the new corporation all the franchises of the old company. In genuine earnest, building started, the first spike being driven without ceremony on July 18, 1907, for, as the local paper said, "The building of the line is not a matter of sentiment with the company; it is a business with them."¹⁶ This itself was an evil omen, and a second one chugged down Willamette past the construction gangs just when the first electric street car turned its power. For on September 27, 1907, a Buick automobile arrived under its own power in Eugene, two days out of Portland (the driver said he could have made it in a day if he had tried), to be put in service as a stage between Florence and Coos Bay. On the same day, the three new street cars went into service, making their first run all the way up Willamette to Eleventh, flapping bunting and toting the town band that lustily scattered dropped notes. It was a big day in Eugene, and the Commercial Club had the inevitable banquet.¹⁷

Now Welch announced that immediate steps would be taken not only to complete the line to Springfield, but to build up the McKenzie and down the Willamette. Quickly he garnered franchises for street railways in Albany, Corvallis, and Salem. In November he revealed his intention to build a main line from Eugene to Portland, and to send off several branches that would run to Prineville and Ontario, Yaquina Bay, Cottage Grove,

¹⁶*Eugene Weekly Guard*, July 18, 1907.

¹⁷*Ibid.*, October 3, 1907. The first cars of the E&E were double truck, deck-roof semi-convertibles built by the American Car Company. For an account of them, see "Semi-Convertible Cars for Portland, Ore., and District," *Street Railway Journal*, XXX (November 16, 1907), 1007. The cars were numbered 1-3.

and Dallas. And he would take in Wendling and Mehama on the way.¹⁸ Survey crews ran the line to Junction City, to Harrisburg, to Albany. Ties were ready for distribution along the way, even before grading was done. Welch could not be stopped, although he watched the work of another promoter, Stephen Carver, then busy laying track for his Corvallis and Alsea River Railroad. The name, Eugene and Eastern, was outgrown and fitted the aspirations too tightly, and in January 1908, Welch transferred all properties and franchises to his new organization, the Portland, Eugene and Eastern Railway.

While Welch talked big, the more immediate job of turning the Eugene local car line into an interurban progressed slowly. Not until the late summer of 1908 did cars run to the suburban station of Kincaid Park. Fare was a nickel. By fall the cars operated to the riverbank opposite Springfield, and work on a new timber truss bridge was started, but not until 1910 did cars cross the river and run through Springfield's main street.¹⁹

During 1908 and 1909 the Oregon Electric made itself into a first-class railway, thus living up to its advance promises. From the beginning, business was good. From the original two daily trains out of the Portland terminal, at Jefferson and Front, the fleet grew to 38 trains by 1909, mostly going through to Salem or Forest Grove, with a swing train to Wilsonville. Fares at three cents a mile were the same as charged by the Southern Pacific, but on the Salem run the patron saved money because the Oregon Electric's line was a couple of miles shorter and the electrics made better time. A 60-ride commutation ticket, costing a cent-and-a-half a mile, encouraged development of suburban areas, and around Garden Home the population rapidly increased. Speed was comparatively high in spite of frequent stops. The gravel-ballasted roadbed, once it settled, and the catenary-hung overhead, permitted cars to make good time without excessive side-whip or danger of having the trolley wheel slip the wire. Some runs, carded as "limiteds," made few intermediate stops and averaged 33 miles an hour between terminals. Local trains, making every stop

¹⁸*Eugene Weekly Guard*, November 28, 1907.

¹⁹*Ibid.*, January 23, 1908.

(and the stations were an average of a mile and a half apart), sustained an average of 20 miles an hour.

The "Supreme Court Limited" left Portland at eight in the morning and reached Salem in two hours, in time for the morning sessions. Another through train was the "Rose City Flyer," when north bound, and the same train, called the "Capitol City Flyer" when south bound, that swung out of the Jefferson Street Station at 9:15 in the morning and reached Salem at 10:50, for an overall time of an hour and 35 minutes for the 50-mile run.²⁰

The Oregon Electric was first operated by telegraph by dispatchers in the company's general offices at 720 Corbett Building, Portland. There was a supplemental telephone system but in 1908 the problem of keeping induced current off telephone lines had not been completely solved. After a few experiences with a telephone line built near a 33,000-volt circuit, the operators had no use for the instruments. Sometimes the telephone equipment sizzled like hot lead.

An unofficial record of company officers in 1908 and 1909 is as follows:

President, George Barclay Moffat of New York; vice-president and general manager, Guy W. Talbot; secretary and traffic manager, Geo. F. Nevins; superintendent, C. A. Coolidge; chief dispatcher, Carl D. Phillip; chief engineer, Wm. H. Galvani; master mechanic, Wm. O. Fragmeier; general counsel, Carey and Kerr; chief surgeon, Dr. E. F. Tucker; general agent Salem, C. S. Walters. Fred Prah was roadmaster and superintended the construction of the Wilsonville bridge. He died in the fall of 1908, and J. O. Johnson, Jr. was appointed roadmaster.

The first Oregon Electric station in Portland was in a triangular brick building at Front and Jefferson streets which was rented by the railway company. The owners of the building leased surplus space to other tenants and there was a saloon in each of the three corners. More than one traveller in a hurry to catch a train found himself standing in front of a bar. Sometimes late Saturday nights some of these travelers had stopped

²⁰"The Oregon Electric Railway System," *loc. cit.*

at similar institutions elsewhere and they were ready for a fight. Occasionally irate citizens of Salem or Hillsboro had to be pacified with a bung starter.

The big business on the Oregon Electric was the week-end excursion running from Saturday to Monday at a charge of a fare and a third for the round trip, which meant \$2 between Portland and Salem. Rolling stock was jammed in both directions.

By the spring of 1909 these excursions had become immensely popular. Business kept up all day Saturday and the late trains on Saturday night were loaded to the guards. On Sunday mornings the Jefferson Street station was a veritable madhouse. Help from the general office was sent down to assist the regular ticket clerks. Hundreds of people went from Portland down the valley to visit families and friends, and in good weather there were hundreds more with picnic lunches.

During the first full year of operation, the Oregon Electric grossed \$298,694, and had an operating ratio of 62, but in the second year the gross income rose to \$474,867 and the ratio improved by dropping to 57.72, which was not at all bad for an interurban.²¹ It was becoming clear that the original equipment and the few additional cars added during the first year were being overworked. To relieve the shortage, the company in 1910 ordered a whole fleet of new equipment—four trailer coaches, three combination motors, two electric locomotives, and, as a bit of prideful display, a pair of observation-buffet motors.²²

Oregonians gaped in awe as the new observation cars, each 62 feet long, mounting four motors, equipped with MU-control, and fitted with a vestibule diaphragm at the front, were coupled at the end of the long crack trains whose consists usually were a leading combination motor, a trailer coach or two, and the

²¹*Fifth Annual Report of the Railroad Commission of Oregon . . . 1911, (Salem, 1912), 195.*

²²"The Oregon Electric Railway System," *loc. cit.*

^{22-a}All passenger equipment in the order was built by Niles to designs similar to that of the Jewetts; the coaches were 61 feet long. The locomotives, built by Alco with GE-equipment, were rated at 50 tons, and were numbered 3 and 4. See "The Oregon Electric Railway, a 1200-Volt System," *loc. cit.*

observation at the rear.²³ When business warranted, one of the express motors might lead the procession, and additional coaches be added until trains of eight units were sometimes operated to carry the crowds. To ride in the observation cars, patrons were charged an extra fare of 35 cents. At the rear was a roomy, open platform, covered by the monitor and dome and protected from the sun by a gay striped awning. Around the platform was an elaborate brass grille and rail. On the rear a large, illuminated drumhead carried the company's herald: a square imposed in a diamond, and the slogan "Willamette Valley Route." The main passenger compartment had individual reed armchairs upholstered in dark green plush. A Wilton carpet in green and gold covered the floor, dark mahogany with light wood inlay paneled the walls, and green and gold decorated the ceiling with Empire style designs. At the front of the car a smoking compartment was masculine with six reed chairs upholstered in green leather. Between the smoking and parlor sections were lavatories and, completing the overwhelming elegance, a "buffet," a tiny, perfectly appointed kitchen, complete with hot and cold water, ice chest, linen closet, hot-water urn, and two-burner stove, all presided over by a white-uniformed Negro cook-and-porter who could, on order, turn out tasty lunches for the patrons while the train rolled along. Appropriately, one car bore on its sides in gold letters the name "Sacajawea," and the other, "Champoeg."²⁴

Altogether, the Oregon Electric was potentially a prosperous, well-built electric railway that adapted its service to the needs of the country through which it ran. On billboards in Portland it blazoned its advertising; it issued attractive booklets and maps; it took advertising space in newspapers. And the crowds packed onto its trains, to ride to the suburbs, the picnic grounds at Wilsonville, the small towns of the valley, the capital at Salem. At night when no passenger trains were moving, the electric locomotives snaked comfortably long strings of freight

²³Oregon Electric cars had single-end control, necessitating their turning at the end of the run; to permit this, Y-tracks were built at terminals and turn-backs.

²⁴Numbered 1000 and 1001. See "Parlor Cars for the Oregon Electric Railway," *Electric Railway Journal*, XXXVI (October 8, 1910), 660.

cars loaded with lumber and merchandise. All eyes were on it, including those of James J. Hill. The Oregon Electric, possibly to its own surprise, soon became a pawn in the game of high finance and railroad strategy.

It all began when James J. Hill secured control of the Chicago, Burlington and Quincy Railroad and thereby assured himself of three things: an entry for his Great Northern into Chicago, a share of the business held by the Union Pacific in the wheat belt, and the enmity of the owner of the Union Pacific, Edward Harriman. That was in the 90's, and though the fight to control the markets of the Middle West might make the pages of the Oregon press, Oregon did not seem directly affected. However, Jim Hill, the Empire Builder, speaking in Portland during the Exposition of 1905, blandly announced that he planned to build a road along the north bank of the Columbia River, and the trouble promptly started. Harriman looked around for means of retaliation. Controlling both the Southern Pacific and the Union Pacific, Harriman desired no competition.²⁵ Promptly, therefore, he prepared to invade Hill's domain in Washington by building into Seattle, but on March 11, 1908, the last spike of the Spokane, Portland and Seattle Railroad, owned jointly by Hill's Great Northern and Northern Pacific, marked the first victory over Harriman.²⁶ In 1909 Harriman died, but his forces rallied and continued the fight.

Hill controlled the ports of Seattle, Tacoma and Grays Harbor. Now, through his ownership of the S. P. & S., he shouldered into the Columbia River shipping routes, and through his purchase of Hammond's Astoria and Columbia River Railroad, secured the mouth of the Columbia. Harriman's forces, however, still controlled the main port on the Pacific Coast—San Francisco, from which radiated Harriman lines to the north, south and east. Attack the Southern Pacific by threatening San Francisco either by building into that stronghold or into some port south of Astoria, and the whole trade empire developed by Harriman would be in danger.

²⁵Glenn Chesney Quiett, *They Built the West* (New York, 1934), 378 ff.

²⁶A good account of this phase of the struggle is H. R. Edwards, "Jim Hill's Great Adventure," *Railroad Stories*, XXI (February, 1937), 34-53; see also Quiett, *op. cit.*

The fight over the North Bank line was merely a preliminary. Quietly, Hill's engineer, John Stevens, obtained ownership of the chartered but unbuilt Oregon Trunk Railway, projected from The Dalles into the region around Bend by way of the canyon of the Deschutes. The Union Pacific discovered the plan, retaliated by organizing the Deschutes Railway and beginning to lay track along the opposite bank of the canyon, at the same time Hill's crews were working. The fight went on, interspersed by injunctions and dynamite. Bend was the ostensible destination, but everyone knew better. Once the Oregon Trunk reached Bend, it would be in position to strike south toward San Francisco, perhaps by joining the new Western Pacific, then under construction along the Feather River. Or the Oregon Trunk could head for some coast port like Crescent City or Eureka. The fight in the Deschutes was expensive, and at Crooked River the rivals had to call a truce, jointly constructing the high arch span there and sharing tracks into Bend, which was reached on October 5, 1911.

The road to Bend did not offer immediate returns, although Hill usually set in immediately to develop the country through which his roads built. To offset the unprofitable construction in the Deschutes, he needed to strike the active business of the Southern Pacific or Union Pacific. The Willamette Valley of Oregon offered him the opportunity; the odds were good—the Southern Pacific already had three lines the length of the valley, and Hill was never one to demand even money. So Hill's forces decided to invade the Willamette Valley.

Hill, in order to check the Southern Pacific, either had to build his own line or to buy roads already operating. At Medford he picked up the Pacific and Eastern, a logging road that meandered back into the Cascades; he might connect it with the Oregon Trunk, strike along the valleys of the Rogue and Illinois to Crescent City and Eureka and then enter San Francisco over the Northwestern Pacific. Harriman bought the Northwestern Pacific. Farther north, the Salem, Falls City and Western offered a possibility, although it merely crossed the west side of the valley; still, it might do, and Hill announced he was negotiating to buy it. Otherwise pickings were not good. The Southern Pacific was backing the Pacific Railway and Naviga-

tion Company's new line being built into Tillamook; it owned the Corvallis and Eastern and controlled the Yaquina; it owned the Coos Bay, Roseburg and Eastern, and was building a line west from Drain. But at Eugene, local groups were grading the Willamette Pacific toward Florence and Marshfield. The financing was weak, and the whole thing was a bluff to make the Southern Pacific build out of Eugene toward the coast; the Southern Pacific knew it, but it bought—and completed—the Willamette Pacific, abandoning its work on the line from Drain. The Southern Pacific seemed secure.

One line remained: the Oregon Electric Railway Company, only an electric interurban. And Hill, in March, 1910, bought it.²⁷ To guard his northern flank, he also bought the United Railways, added it to the Oregon Electric, and was suddenly established in the valley. He controlled outlets to the north, south and west from Portland.

His methods had been characteristic. The Oregon Electric and United Railways were bought by the Spokane, Portland and Seattle, which in turn was jointly controlled by the Northern Pacific and Great Northern, and both were controlled by Hill. Thus, indirectly he had entered the valley and made his presence there an achieved fact.

Organized on February 2, 1906, the United Railways had planned to follow the routes of the projected Oregon Traction which, in 1905, surveyed a line out Stark Street and along Canyon Road to Forest Grove. From the beginnings, the United Railways had troubles, and in 1908 it had built only a short switching line along Front Avenue and a narrow gauge extension from the terminal of the Kings Heights street car line as far as Mt. Calvary Cemetery. Rather than complete this direct line to Forest Grove, the United Railways made arrangements with the street car company to provide operations, and then proceeded to select a new route, to be built to standard gauge, to leave the city by way of Pettygrove and Twenty-Second, skirting Guild Lake, and following the river to Linnton. There it would climb the hills to Cornelius Pass, go under the crest through a long tunnel, and drop into the Plains north of Hillsboro; eventually it would reach Tillamook. In 1908, except

²⁷*Oregonian*, March 3, 20, 21, 1910.

for the two strips of disconnected track of different gauges, the United Railways seemed stagnant. Then, on its Front Street line, it put in service a heavy electric switching locomotive, the One-Spot on its roster, and picked up some terminal business. By 1909 the main line had reached Holbrook at the foot of the grade, and regular freight and passenger trains were scheduled, although the Portland franchise forbade any operation of equipment on city streets before the line was completed to Hillsboro. To meet the situation, the city council granted an extension of time for completion and permitted operations in the meantime, but Mayor Lane vetoed the ordinance.²⁸ The United Railways gave up, selling out to a new group of owners which went ahead with the building of the road and the tunnel at Cornelius Pass, probably the longest tunnel built for interurban service. When the job was done, Hill felt it time to admit his ownership. By March, the United was running cars into Banks, which remained the final electric terminal, well located in an area devoid of potential business.

In addition to the locomotive, equipment included three passenger motors, a combination motor, and several rebuilt steam railway coaches to be used as trailers. The passenger motors were lighter than those of the Oregon Electric, but similar in design. As additional equipment came to the road under S. P. & S. control, it was identical to that of the Oregon Electric.²⁹ One change in the appearance of both interurbans which resulted from control of the steam road, was the painting of all coaches a sombre black instead of the original bright colors.

With the two interurbans in his possession, Hill readied his plans to continue his invasion: the United would threaten the new Pacific Railway and Navigation line to Tillamook and would block any attempt by the Union Pacific to build north along the left bank of the Willamette; the Oregon Electric tapped the business of the Southern Pacific's West Side and main lines. Thwarted in central Oregon, Hill announced that he would build his Oregon Electric immediately into Albany,

²⁸*Electric Railway Journal*, XXXI (January 9, June 5, June 12, 1909), 87, 1062, 1101.

²⁹United Railways equipment was numbered in sequence as it was added, with the locomotive the One-Spot, and the passenger coaches and combination coach numbered in order.

Eugene, Roseburg and Ashland. From there it might serve as a possible extension into San Francisco. To tie the two interurbans together, new trackage was laid from the Oregon Electric station in Portland to Tenth and Hoyt, where the North Bank station served the S.P.&S. and the United, and then when the link was finished, Oregon Electric trains also. With all preparations ready, the Oregon Electric sent grading crews south from Salem.

Hill's excursion into the Willamette Valley had become dangerous, and the Southern Pacific was forced to take counter measures. Simply improving local service on branch lines was not enough, although some McKeen gas-electric cars poked their pointed noses into the suburban towns served by the railroad. The public taste was not for the gas-electrics, but for electric railways, and the Oregon Electric satisfied the demand. To meet the Oregon Electric, the Southern Pacific could begin converting its Oregon lines to electric, but the Southern Pacific was pressed for time.

Alvadore Welch had gone ahead with his plans and had obtained franchises for his projected extensions, purchased the local lines of the P.R.L.&P. in Salem, had built a short local line in Albany to replace the old steam dummy road, and was pushing his surveys the length of the valley. He purchased from Stephen Carver, the short Corvallis and Alsea River Railroad. This line would be extended from Monroe to Eugene and be electrified. While Hill was napping, Welch added the Salem, Falls City and Western to his system. In the meantime, Oregon Electric grading crews had worked south past Independence and were nearing the Santiam.

Early in 1912 the scattered parts fitted together to make a clear design. First, in Portland, the Southern Pacific made public its plans to electrify all west side lines to McMinnville, entering Portland by way of Fourth Street and Jefferson,³⁰ Second, Robert E. Strahorn arrived in Oregon to play the part John Stevens had played for Hill. Strahorn had been an old and faithful retainer for Harriman, and once he was turned

³⁰"Electrification Out of Portland, Ore.," *Electric Railway Journal*, XXXIX (February 17, 1912), 284; see also "Electrification of Southern Pacific Company's Portland Lines," *ibid.*, XL (July 13, 1912), 66.

loose on a job, the job would be done—with flourishes. He had made his start a good many years before when he wrote publicity for the Union Pacific. After that he did advance work for the Oregon Short Line, laying out and establishing towns like Hailey, Shoshone, and Caldwell along the new road.³¹ Endowed by nature with a ringing voice, a gift for rich phrases, and an ingratiating presence, Strahorn was perfect for the job. He arrived in Oregon, disclaiming any connections with the Southern Pacific, and purchased control of the Portland, Eugene and Eastern, of which he promptly became president, with Welch remaining on the board of directors for a year. After some speeches and preliminary spade-work, the Southern Pacific admitted it had bought the Portland, Eugene and Eastern and would use it as the operating company for its proposed electrification.

Now the whole plan was revealed. The entire Willamette Valley would be webbed by new electric lines that would effectively throttle the Oregon Electric. One route would follow the West Side and the C.&A.R. to Eugene; another would parallel the Southern Pacific's main line to Salem; another would follow the old Oregonian from Woodburn to Silverton and Geer, where it would then strike west across the valley to Dallas; short feeders would be built to Molalla and other points. To make possible a short-cut to Salem, the Portland, Eugene and Eastern bought the Willamette Falls Railway from the Portland General Electric and extended it to Oswego. Overnight, the Southern Pacific had become possessed of a vast system of projected electric interurbans.³² To catch public attention, the company started a contest for a suitable name for the system, and Mr. Lewis A. McArthur, who was connected with the Pacific Power & Light Company, won \$25 for his suggested "Web-foot Route," a name suitably acclaimed and rather quickly for-

³¹For accounts of Strahorn's various activities, see Quiett, *op. cit.*; R. V. Mills, "Bringing the Rails to Boise," *Bulletin No. 53*, Railway and Locomotive Historical Society, (October, 1940), 31-38; Mark Woodruff, "Robert E. Strahorn," *Pictorial Oregon* (Portland, 1915), 90; and especially Carrie Adele Strahorn, *Fifteen Thousand Miles by Stage* (New York, 1911).

³²*Electric Railway Journal*, XXXIX (June 11, 1912), XL (July 13, August 17, 1912), *passim*.

gotten.³³ When the system began operation it was always referred to as the Red Electric.

Though most of the project was still only planned, the Portland, Eugene and Eastern had in operation a fair mileage, both by steam and electricity, 69 miles of the former and 35 miles, divided into five sections, of the latter.³⁴ Except for the short suburban between Eugene and Springfield, which finally had been completed, all operations were ordinary street railway lines.

On the new electrification, when completed, high speed electric trains would carry the passenger traffic, but the freight would move as before behind steam locomotives. This decision to operate dual service was the weakness in the scheme. To be sure, on paper, the project was impressive, but essentially it was impracticable, too much a makeshift, too much a hasty answer to the plans of Hill. The Portland, Eugene and Eastern would not in fact be an independent railway, but a kind of operating adjunct to an existing steam road; it was nothing more than an electrification of suburban lines patronized by commuters. And Portland, in spite of its metropolitan claims, did not have enough suburban and commuting traffic to warrant the construction of any such elaborate system. The failure to provide for electric movement of freight doomed the P.E.&E. because it could never muster enough passenger traffic on its long hauls through sparsely settled country to justify its exist-

³³*Ibid.*, XLI (January 11, 1913), 88. Mr. McArthur had previously been ticket agent at the Portland station of the Oregon Electric during its first years at the time Guy W. Talbot was vice-president of the road; later Mr. McArthur went with other public utility and street railway companies, from which possibly he derives his interest in place names. I am much indebted to him and to Mr. Talbot for their reminiscences and their aid in gathering material concerning early electric railways in Oregon. Another man whose knowledge of electric railroading is extensive and practical and who has aided me is Mr. D. I. Clough, of the Oregon Electric; Mr. Clough has been in charge of electrical equipment of the road since its beginnings.

³⁴By steam, 69.9 miles, exclusive of the additional 62.7 miles of the S.F.C.&W.; by electric, 35.6 miles, of which 12.8 miles were in Eugene, 13.8 miles in Salem, one mile in Albany, and three miles to Springfield. The P.E. & E. operated seven freight locomotives and 152 freight cars in steam service; on the electric lines were 33 electric passenger cars, three freight cars, 12 work cars, and four locomotives. *Eighth Annual Report of the Railroad Commission of Oregon . . . 1914* (Salem, 1915), 238-239.

ence in the form it had taken. This was the main difference between the Oregon Electric and the P.E.&E.: the Oregon Electric was an electrical railroad, the P.E.&E. operated electric cars as the unwanted step-child of a steam railroad.

Serenely untroubled by the movements of the Southern Pacific, the Oregon Electric went on with its track building. Now and then it faced some direct sniping, as when malcontents were infiltrated among the grading crews to promote a strike but the agitators were weeded out, the trouble calmed, and the work went on.³⁵ Steel crews laid rail; the bridge gangs rushed works at the Santiam and the Willamette, and the work hastened. Both at the Santiam and the Willamette the problems faced were difficult, but engineers solved them, building the first bridge under traffic, and erecting a lift-span near Harrisburg where groups still were making desultory efforts to navigate the upper river. Eventually the work was done, and on October 15, 1912, the first train rolled down Fifth Avenue to the new wooden station in Eugene. At Willamette Street it passed under an arch of triumph, painted white and tastefully emblazoned with gloating slogans.³⁶ It was a grand occasion, the town band turned out, visitors from neighboring towns were on hand, especially a delegation from Roseburg which was also expecting the Oregon Electric. The railway built short branches to Woodburn³⁷ and Corvallis that provided feeders, and the main stem set to work draining out the business of the valley, business that had always been thought safely belonging to the Southern Pacific.

Extension of the main line and the increase in traffic during the first three years of ownership by the S.P.&S. led the Oregon Electric to add to its roster 15 new combination motors, 42 passenger coaches, and four special service cars, all built by Niles or the American Car Company. In design and general specifications the new equipment was similar to the earlier, but the trucks now mounted two GE-57 and two GE-205 motors, the latter intended for operation on the line south of Portland, for

³⁵*The Oregonian*, August 28, 1912.

³⁶*Eugene Morning Register*, October 15, 1912.

³⁷The Woodburn branch was built by the controlled Valley Railway, *Electric Railway Journal*, XXXII (June 20, 1908), 143.

except on city trackage, the road had been converted to 1200-volt operation.

Two of the new cars were unusual for interurban service. Named the "Santiam" and the "Calapooya," these were trailers fitted for sleeping service. Each car was 57 feet long and nearly 9½ feet wide, a width approximating steam railway practice and greater than the ordinary interurban. Inside were ten sections, five on each side of the aisle. Berths were similar to Pullman in fitting and construction but were slightly longer. The decorations were quietly elegant with the mahogany walls, Wilton carpeted floors, figured freize plush upholstery, bronze metal trim, and gold and green tinted ceilings.³⁸ They were used on the overnight or "Owl" train between Eugene and Salem; each midnight a combination motor and trail sleeper would pull out of the terminals and make their leisurely way the length of the valley, arriving at their destinations in between five or six hours. For the convenience of patrons, the sleepers were opened for occupancy at nine in the evening, and passengers did not have to vacate them until eight in the morning. Large, well-fitted dressing rooms were provided at the ends of the cars, and many passengers took advantage of the service they offered. Business men could sleep comfortably aboard, rise in the morning and put in a full day's activity, and return on a night train with the loss of no wasted time. In addition to the "Owls," four other daily trains operated between Portland and Eugene, two of them "Limiteds," of which one carried the extra-fare parlor-observation cars. Speed was not great: five hours was the average run because stations, even for limiteds, were closely spaced, and cars could hardly be brought to top speed before braking for the next stop.³⁹

Short haul and package freight originating both on the line and through interchange, lumber from mills in the valley, and carload lots of grain and other valley products provided the road with a steady freight traffic. To move it, in 1910 four 50-ton electric locomotives, and in 1912 four 60-ton locomotives came

³⁸*Ibid.*, XLI (January 18, 1913), 119.

³⁹"The Oregon Electric Railway," *ibid.*, XLIII (June 14, 1914), 1050-1056; Eugene *Daily Guard*, October 11, 1912; Campbell, "The Oregon Electric Railway, a 1200-Volt System," *loc. cit.*

from the American Locomotive Works.⁴⁰ During 1913, six new express motors and six trailers, each over 60 feet long and designed with arch-roofs, went into special service. The express cars were the last, perhaps it is significant, of new equipment to be added to the roster of the Oregon Electric for a quarter of a century.

With an ample fleet of cars at hand, the Oregon Electric could make up its trains to fit the requirements of the service. The express motors might run singly or in multiple as extras, carrying fast freight, or they could head the through passenger trains. The combination motors led all passenger trains and sometimes served themselves as single unit accommodation or owl runs. During rush hours, strings of coaches both trail and motor, were coupled to operate as commuters' trains. At night, when passenger traffic was slack, the electric locomotives would slowly haul long strings of ordinary box-cars, many with the company name on the side, and at the rear would come the little red caboose, marker lights glittering, and a bored brakeman in the parlor. In and out of the Hoyt Street terminal the trains shuttled during the day. And along the line, to serve the business, rose new stations, of varying designs from small open shelters to imposing brick buildings like the fine one opened in Eugene.⁴¹ By 1914 the Oregon Electric had a right to be proud of its achievements; it was as fine an electric railway as any in the country in equipment and service.

In the meantime, the Southern Pacific went ahead with its electrification. During 1912, crews extended the grade of the former C.&A.R. south from Monroe to a junction with the Willamette Pacific, as the Marshfield extension was called, and trackage from Eugene to Corvallis was opened. Designers, influenced by the newly built suburban equipment of the Pacific Electric, prepared specifications for the electric cars which would put to shame those of the rival Oregon Electric. Still, the reason for haste was disappearing. The Oregon Electric had invaded

⁴⁰Numbered 3-6 and 21-24; later the 5 and 6 were rebuilt to 60 tons and renumbered 25 and 26. All are in service.

⁴¹*Electric Railway Journal*, XLIII (May 16, 1914), 1125. For details see "New Station at Eugene," *ibid.*, XLVI (November 15, 1915), 989.

the valley for Hill, but it had been checked at Eugene, and for the time at least the battle calmed. The great enthusiasm for electrics, moreover, was beginning to wane as the automobile became cheaper and more dependable. In Eugene, tracklaying on extensions of the local line proceeded leisurely, and the Blair Street line, expected to continue to Santa Clara, bogged down at the Southern Pacific crossing. Whereupon the irate Santa Clarans howled loudly and petitioned the Oregon Electric to build them a line. Santa Clara did not get its interurban. Neither did Creswell. And, for that matter, even Springfield was ignored by the Oregon Electric.

Actual work to construct the interurban system began in Portland when a wire train, pushed by a steam locomotive, began stringing the catenary overhead from the Union Depot and out Fourth Street. At Beaverton new shops were built to repair and maintain the electric cars which began to arrive from the manufacturer. New electric locomotives, to be used in local switching in cities, received their operating tests on the Pacific Electric. At last, on January 15, 1914, the Portland, Eugene and Eastern made a trial run from Beaverton to Gaston with a couple of motor cars, and three days later, January 18, regular service began on the McMinnville loop.⁴² Trains operated to McMinnville and on to the electric terminal at Whiteson both by way of Forest Grove and Oswego. In some towns, loop tracks carried the cars down the main streets where interurbans were thought properly to operate, and in Salem and Forest Grove electric locomotives took over city switching. At the end of the year, the electric lines showed a net profit of operations, but after that, only deficits appeared on the books.⁴³ For three years, service on the loop continued before any additional construction extended electric operations to Corvallis. Though track reached Eugene, no overhead was ever strung, and the final terminal for Southern Pacific electric operations remained

⁴²"New Southern Pacific Line in Oregon," *Electric Railway Journal*, Vol. XLIII (February 14, 1914), 359-61.

⁴³Net profits from operations exceeded net expenses, but only on the electric lines; after the interest on the open account with the Southern Pacific had been paid, a deficit of nearly half a million dollars remained on the books. *Eighth Annual Report of the Railroad Commission of Oregon . . . 1914* (Salem, 1915), 240.

at Corvallis, which was given electric passenger service on June 17, 1917.⁴⁴ The grand plan of Strahorn disappeared.

The line was well built. Heavy steel rails on firmly settled roadbed that had already been in long service permitted fast operation; the poles were creosoted; the catenary overhead carefully strung. In Portland, the regular 600-volt operations, common to street railway and suburban trackage, was installed, but outside the city, the voltage was 1,500. Power came from the Cazadero plant of the Portland Railway, Light and Power Company, and was transmitted to Milwaukie at 60,000-volts where a sub-station stepped it down and sent it by two feeders, each at 13,200-volts, one to Forest Grove and the other to sub-stations at Dundee, McCoy and Wellsdale where it was again reduced to the 1500-volt service strength.⁴⁵

Movement of freight by steam locomotives on the same tracks and under steam operating rules required that the overhead be strung abnormally high, out of the reach of the ordinary trolley pole. To collect the current, roller pantographs were used, tall frameworks that were in turn mounted on high frames above the roofs of the cars; their height, out of proportion to the cars, made the equipment look top-heavy and clumsy. For some reason, perhaps because they operated only on city trackage, the three locomotives, built by Baldwin with Westinghouse equipment, were fitted with poles.⁴⁶

Passenger and express motors followed a single design, and were structurally the same, and all cars, regardless of the service for which they were intended, were mounted on Baldwin trucks and carried four General Electric motors, each wound for

⁴⁴"Southern Pacific Extends Oregon Electrification," *Electric Railway Journal*, L (October 27, 1917), 757-760.

⁴⁵*Ibid.*, and "New Southern Pacific Line in Oregon," *loc. cit.*

⁴⁶"Southern Pacific Locomotives," *Electric Railway Journal*, XL (October 5, 1912), 626-627. They were numbered 100-102; the 100 was at first numbered C.P. 200 and given trial on Pacific Electric trackage, and after abandonment of electric operations in Oregon was sold to another S.P. subsidiary, the Petaluma and Santa Rosa Electric Railway, where it is in service as their Number 100; the 101 remained in switching service in Salem on the short orphan electric trackage until 1941 when it was replaced by a diesel-electric switching locomotive; the 102 was long stored at Brooklyn Yards, and in 1942 it and the 101 were sold to the Waterloo, Cedar Falls and Northern Railway, an electric interurban in Iowa.

750-volts but insulated for operation in series and tapped for 600-volt operation in city service. All cars, motors and trailers, were fitted with equipment for multiple-unit operation, and by alternating trail and motor cars, very long trains might be operated. The cars were 57 feet long, slightly over nine feet wide, and 52 tons in weight with motors. In design they incorporated the newly popular arch-roof construction which eliminated the monitor and made the cars look longer and lower than Oregon Electric interurbans. They were built entirely of steel, with heavy steel beams in the frame and steel panels on the sides and roofs; the floor itself was strengthened by having cast concrete between the main sills, so that the car was carried on a solid slab. On the passenger motors, the side windows were square, paired under low, almost rectangular transoms which were fitted with yellow art glass. The distinguishing mark of the cars, however, was the shape of the windows in the ends: these were circular, flanking the center door, and gave to the cars the familiar type nickname of "bulls-eyes."

The original roster included 13 passenger motors, 9 passenger trail coaches, and 14 combination passenger-baggage motors; all built by Pullman in 1914. In the next year Pullman furnished three additional combination motors, six baggage-express motors and three express-railway post office motors.⁴⁷ Operating in trains, with small pilots, and with their gongs mounted upright on the ends of the roofs, the cars, their pantographs extended and reaching the high overhead, made an impressive show. Fortunately, their color helped to give them the lordly magnificence they flaunted in the faces of their rival black coaches of the Oregon Electric. Rather than following the usual practice of the Harriman lines of painting the passen-

⁴⁷"New Southern Pacific Line in Oregon," *loc. cit.* A roster of all Southern Pacific electric equipment used in Oregon is found in *The Western Railroader*, IV (February, 1941), 6. Passenger motors were numbered 201-218, passenger trailers from 470 to 478 (originally 700-708), combination motors from 500 to 516; express motors from 750 to 755 and the RPO cars 770 to 772 (originally 450-452.) The slight renumbering in two series resulted from the regularization of numbering of all cars operated by the Southern Pacific in Oregon and at Oakland according to a single numbering scheme. Local cars used in Oregon were renumbered 850 to 880. Most of the cars used in Oregon are now in service under other numbers on the Pacific Electric Railway.

ger equipment an olive-green, the Portland, Eugene and Eastern followed the practice of the Pacific Electric and used a deep glossy red, with gilt lettering. On the letter boards, the name "Portland, Eugene & Eastern" stretched from vestibule to vestibule and the car number was painted on the ends of the side panels and in very small numerals above the end doors. The roof carried fixed markers, and the left dash carried a destination sign showing both train number and name. A bit of confusion came from the placing above the car numbers on the panels the initials of the owning corporation, some cars carrying "O&C" and others "SP." This was continued after the lettering was changed to "Southern Pacific Lines."

Service on the electric lines of the Southern Pacific did not rival the special types or the elegancies of the Oregon Electric. Trains were workaday locals, patiently meandering from stop to stop and catering to commuter and local traffic. No parlor car or sleeper service was provided, perhaps because cars operated were well finished and very comfortable to begin with. Nor was any attempt to give catchy names to the Southern Pacific trains; instead, such prosaic titles as "East Side Electric," "West Side Electric," "Cook Local," and "McMinnville Electric" appeared in the official time-tables. Operating rules were the standard rules of steam railways, modified slightly to meet special conditions imposed by the electrification. Thus one rule required that no "regular scheduled electric train" between six in the morning and six in the evening might exceed three cars in the congested area of Portland, and that trains would be cut into two sections at the Jefferson Street Station or at Sheridan Street; another rule required that pantographs be spaced at least one car-length apart, and another, taken from the practice of street or interurban railways required that the "enginemen operating electric trains" maintain a standing position while running trains through the city streets.

Speed was fair, averaging between 30 and 32 miles an hour in open country, including way-stops; the well-ballasted track laid with heavy steel permitted cars to reach full acceleration very quickly. Patronage was good when the road opened, although the line served no large towns outside of Portland. Commuters to stations in the southern edge of the city or in the

Tualatin country or around Oswego flocked to the cars, and at morning and evening long red trains rolled up to the screened gates of the Union Station, loaded and headed out onto Fourth Street, their gongs clanging and their peculiarly melancholy air whistles giving the two long, two short crossing blasts. They, with the big black Oregon Electrics, gave Portland a genuinely metropolitan air.

Nor were the commuters the only ones to ride the big red cars. Shoppers bound to Portland or smaller trading areas, interchange passengers encumbered by baggage, business-men, and college students from Corvallis, all took the electrics. Especially did the collegians use the red cars; they left the black cars alone—for a number of reasons. First, the Oregon Electric did not actually enter Corvallis, having its terminal just across the bridge from the town; second, many trains were stubs, requiring a transfer to the through trains from or to Eugene. And third, the Oregon Electric served Eugene and the students of the University. Naturally, therefore, students of Oregon State rode the red electrics.

When the Southern Pacific completed its electrifications to Corvallis, Oregon had a right to feel proud, for it had as fine and as extensive a system of interurbans as any state in the West, possibly in the country. To the north ran the cars of the United and the P.R.L.&P.; to the south the Southern Pacific and the Oregon Electric; to the west the same roads; to the east, the Portland Railway Light and Power. Nor was that all: two other lines were operating in the State. Let the Great Northern fight all it pleased with the Southern Pacific and the Union Pacific; let them play their war games all over the game board that was the Pacific Northwest. So far, Portland and Oregon had been benefitted: more people, more railways, faster service, cheaper service.

Still, there were those who remembered the Buick that arrived in Eugene in 1908.

SHORTER NOTICES

THE LEADING ARTICLE in the *Pacific Historical Review*, September, 1943, is "The Scientist in the West, 1870-1880," by Howard D. Kramer, an account of the geographical and geological surveys of Clarence King, F. V. Hayden, John W. Powell and George M. Wheeler. Other articles are "Anti-Expansionism During the Johnson Administration," by Donald Marquand Dozer; "Hawaii and the American Penetrations of the Northeastern Pacific, 1800-1845," by Harold Whitman Bradley; "Sectionalism and the California Constitution of 1879," by Dudley T. Moorhead; "Populism and Socialism with Special Reference to the Election of 1892," by George Harmon Knoles.

The following articles make up the contents of the *Pacific Northwest Quarterly*, October, 1943: "The Farm Labor Problem in Washington, 1917-18," by Carl F. Reuss; "The Early History of Pocatello, Idaho," by Robert L. Wrigley, Jr.; "George Turner, Part II: United States Senator and Counsel and Arbitrator for the United States," by Claudius O. Johnson. In the Teachers Section are "Teaching Materials in the *Washington Historical Quarterly* and the *Pacific Northwest Quarterly*," by Ruth West; "Suggestions for the Teaching of Washington Government," by Herman J. Deutsch.

An important addition to the source material for the fur trade is the journal of John Work's expedition from Fort Vancouver to California, 1832-33, edited by Alice B. Maloney, printed in the *California Historical Society Quarterly*, September, 1943, with the title "Fur Brigade to the Bonaventura." This is a first installment, and covers the time from August 17 to December 6, 1832. In preparing the journal for publication Mrs. Maloney traveled over a good deal of Work's route in southern Oregon and northern California, and her extensive notes contribute much interesting information.

The *British Columbia Historical Quarterly*, July, 1943, contains the following articles: "Canada's First Submarines: CC1 and CC2. An Episode of the Naval War in the Pacific, 1914-18," by Gilbert Norman Tucker; "The Early Government Gazettes," by Madge Wolfenden; "Archbishop Seghers, The Martyred Archbishop of Vancouver Island," by Sister Mary Annunciata; "Thompson Coit Elliott (1862-1943): A Tribute," by F. W. Howay; "The Diary of Robert Melrose: Part II, 1853-54."

The *Annals of Wyoming*, July, 1943, reprints "Bonneville's Expedition to Rocky Mountains," by Gouverneur K. Warren, first printed in Warren's *Memoir* in 1859. Included is a letter from Bonneville giving some details of his exploration which was omitted from the *Memoir*. Also in this issue is "An Excerpt from the Journal of E. Willard Smith, 1839-1840," edited by J. Neilson Barry, which was printed in full in the *Oregon Historical Quarterly*, September 1913.

DEEDS for property acquisitions in area of St. Louis and Concomly

Grantors:

Edmund Goffin, Deed #192, 2.82 acres, recorded
in Deed Records of Marion County in Book 97 at Page 146,
March 14, 1907

F. Goffin, Deed #189, 0.72 acres, recorded in
Deed Records of Marion County in Book 97 at Page 145 on
March 14, 1907.

Railroad milepost 36.

WVCurrie

OREGON ELECTRIC RAILWAY COMPANY

TIME TABLE No. 20

**TO TAKE EFFECT AT TWELVE-ONE (12:01) O'CLOCK A. M.
PACIFIC TIME**

SUNDAY, AUGUST 22, 1915

**SUPERSEDING TIME TABLE NO. 19 AND ALL SUPPLEMENTS THERETO
THIS TIME TABLE IS FOR THE USE OF EMPLOYES ONLY**

Second Class		FIRST CLASS																				Car Capacity		Distance from Portland	Time Table No. 20 August 22, 1915				
71		21	47	19	48	17	15	41	59	18	57	39	9	63	37	55	7	35	53	5	38	31	1			Passing Tracks	Other Tracks	STATIONS	
Freight		The Owl	Local	Local	Local	Local	Local	Local	Local	Limited	Local	Local	Local	Local	Local	Local	Local	Local	Local	Local	Limited	Local	Local	Local					
Daily Ex. Sun.		Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily					
		L 11.45 ^{PM}	L 11.15 ^{PM}	L 9.20 ^{PM}	L 6.15 ^{PM}	L 6.00 ^{PM}	L 5.35 ^{PM}	L 5.25 ^{PM}	L 5.00 ^{PM}	L 4.40 ^{PM}	L 3.35 ^{PM}	L 3.30 ^{PM}	L 2.10 ^{PM}		L 1.05 ^{PM}	L 12.50 ^{PM}	L 10.40 ^{AM}	L 10.25 ^{AM}	L 10.15 ^{AM}	L 8.25 ^{AM}	L 8.15 ^{AM}	L 6.50 ^{AM}	L 6.45 ^{AM}		Yard	00.0	PORTLAND.....DI		
							16 5.40	58 5.28			40 4.49						36 10.52			32 8.28	2 6.53	2 6.50		DbTk	0.35	DN HOYT ST. STATION. OW			
																												0.35	STARK ST.....
																												0.6	PARK PLACE.....
		L 8.35 ^{PM}		s 12.05 ^{AM}	s 11.30	s 9.35	s 6.30	s 6.15	s 5.50	s 5.40	s 5.15	s 4.55	s 3.50	s 3.45	s 2.30		s 1.20	s 1.05	s 11.00	s 10.40	s 10.30	s 8.40	s 8.30	s 7.05	s 7.00	Yard	1.3	JEFFERSON ST. STA. J	
																												1.5	HARRISON ST.....
		8.39		12.06	11.31	9.36	6.31 ⁴²	6.16	5.51	5.41	5.16	4.56	3.51	3.46 ¹⁴	2.31		1.21 ¹²	1.06	11.01	10.41 ³⁶	10.31	8.41	8.31	7.06 ⁴	7.01		1.7	SHERMAN ST.....	
		8.50		f 12.11	f 11.37	f 9.42	f 6.34	f 6.22	f 5.57	f 5.44	f 5.22	f 5.00	f 3.57	f 3.50	2.35		f 1.25	f 1.10	11.05	10.44	f 10.36	8.46	f 8.36	f 7.11	f 7.05		3.0	CORBETT ST.....	
		9.02		12.13	f 11.40	f 9.46	f 6.36	f 6.26	f 6.01	5.47	f 5.26	5.02	f 4.01	3.52	2.38		1.27	f 1.13	11.08	10.46	f 10.39	8.49	f 8.39	f 7.14	f 7.07		4.1	VIEW POINT.....	
		9.13		12.17	f 11.44	f 9.50	s 6.38	f 6.30	f 6.05	5.49	f 5.30	5.04	f 4.05	3.54	2.40		1.29	f 1.16	11.12	10.48	f 10.42	8.52	f 8.42	f 7.17	f 7.09		5.2	CAPITOL HILL.....	
		9.21		f 12.20	s 11.48	s 9.53	s 6.41	s 6.34	s 6.09	5.51	s 5.34	5.06	s 4.08	3.56	2.43		1.31	s 1.20	11.15	10.51	s 10.45	8.55	f 8.45	f 7.20	f 7.11	12	6.3	MULTNOMAH MU	
		9.35		s 12.25	A 11.55 ^{PM}	A 10.00	A 6.45 ^{PM}	s 6.40	s 6.15 ⁴²	A 5.55 ^{PM}	s 5.40	5.10 ¹⁶	s 4.15	A 4.00 ^{PM}	2.48		A 1.35 ^{PM}	s 1.25	11.20	10.55 ^{AM}	A 10.50 ^{AM}	9.00 ³⁴	A 8.50 ^{AM}	A 7.25 ^{AM}	7.15	Y8	8.2	GARDEN HOME GH	
		9.40		f 12.29		f 10.03	f 6.44	f 6.18		f 5.44	5.14	f 4.19		2.53			f 1.28	f 11.25				9.03		f 7.19		S8	10.0	METZGER.....	
																												10.9	S. P. R. R. CROSSING..
		9.44		f 12.32		f 10.07	s 6.47	s 6.22 ⁶⁰		s 5.47	5.16	s 4.22		2.56			s 1.32	s 11.29				9.06		s 7.23		26	9	11.7	TIGARD.....VR
		9.48		12.36		10.11	6.51	6.26		5.51	5.20	4.26		3.02			1.35	11.33				9.09			7.28	14		13.6	NILES.....
		9.53		f 12.40		s 10.18	f 7.00	A 6.30 ^{PM}		A 5.55 ^{PM}	s 5.23	A 4.30 ^{PM}		3.10 ¹⁴			A 1.40 ^{PM}	s 11.38				9.12		s 7.33		8	13	15.6	TUALATIN.....NA
		9.57		f 12.43		f 10.18	f 7.00			f 5.26				3.13				f 11.42				9.14		f 7.36		S13	17.1	NASOMA.....	
		10.02		f 12.47		f 10.22	f 7.03			f 5.29				3.17				f 11.46				9.17		f 7.41		23	S7	18.6	TONQUIN.....Q
		10.04		f 12.49		f 10.25	f 7.06			f 5.32				3.19				f 11.49				9.19		f 7.44		S8	19.9	MULLOY.....	
		10.10		f 12.55		f 10.30	s 7.10			f 5.37				3.25				s 11.55				9.23		s 7.50		27	Y8	22.5	WILSONVILLE.....V
		10.16		1.00		10.36	7.15			5.42				3.31				12.01 ^{PM}				9.27		7.56		26		24.9	CURTIS.....
		10.23		f 1.07		f 10.42	f 7.22			f 5.51				3.38				12 s 12.10				9.33		f 8.03		22	26	28.7	DONALD.....D
		10.28		f 1.12		f 10.47	f 7.27			f 5.57				3.44				f 12.15				9.37		f 8.10		20	3	31.4	BROADACRES.....
		10.34		f 1.17		f 10.52	s 7.31			s 6.02				3.49	L 2.50 ^{PM}			s 12.20				9.42		s 8.16		39	Y3	34.1	WEST WOODBURN RN
		10.40		f 1.23		f 10.57	f 7.36			f 6.08 ²⁰				3.55	f 2.56			f 12.26				9.46		f 8.22		13	10	36.9	ST. LOUIS.....
		10.44		f 1.28		f 11.01	f 7.40			f 6.13				3.59	f 3.00			f 12.29				9.49		f 8.27		17	3	39.1	CONCOMLY.....
		10.48		f 1.32		f 11.04	f 7.43			f 6.17				4.03 ⁶⁴	f 3.03			f 12.33				9.52		f 8.30		12		40.9	WACONDA.....W
		10.51		f 1.35		f 11.07	f 7.46			f 6.20				4.08	f 3.06			f 12.36				9.55		f 8.34		14	6	42.5	HOPMERE.....
		10.53		f 1.38		f 11.09	f 7.49			f 6.22				4.13 ¹⁶	f 3.09			f 12.38				9.58 ¹⁰		f 8.37		S11	43.6	QUINABY.....	
		10.58		s 1.42 ⁷²		s 11.13	s 7.52			f 6.27				4.18	s 3.13			s 12.43				10.01		s 8.42		15	2	46.0	CHEMAWA.....
		11.05		f 1.48		f 11.18	f 8.02 ²²			f 6.33				4.25	f 3.18			f 12.49				10.05		f 8.48		25	8	48.9	DEAF SCHOOL.....
		A 11.15 ^{PM}		A 1.55 ^{AM}		A 11.25 ^{PM}	A 8.10 ^{PM}			A 6.40 ^{PM}				4.33 ^{PM}	A 3.25 ^{PM}			A 12.55 ^{PM}				A 10.11 ^{AM}		A 8.55 ^{AM}		Yard	50.8	SALEM.....SA	
		71		21	47	19	48	17	15	41	59	18	57	39	9	63	37	55	7	35	53	5	38	31	1				
		Daily Ex. Sun.		Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily				
		2.40 19.0		1.50 25.4	0.25 19.6	1.50 27.7	0.15 27.6	1.55 25.8	0.40 23.4	0.15 27.6	0.40 23.4	1.45 28.6	0.40 20.5	0.15 27.6	2.03 24.1	0.35 28.6	0.15 27.6	0.35 19.1	1.55 25.8	0.15 27.6	0.20 20.7	1.30 33.8	0.20 20.7	0.20 20.7	1.55 24.5				

STATIONS	Distance from Portland
PORTLAND.....DI	0.00
DN HOYT ST. STATION. OW	0.35
STARK ST.....	0.25
PARK PLACE.....	0.72
JEFFERSON ST. STA. J	0.20
HARRISON ST.....	0.20
SHERMAN ST.....	1.30
CORBETT ST.....	1.10
VIEW POINT.....	1.10
CAPITOL HILL.....	1.10
MULTNOMAH MU	1.90
GARDEN HOME GH	1.82
METZGER.....	0.88
S. P. R. R. CROSSING..	0.76
TIGARD.....VR	1.90
NILES.....	2.00
TUALATIN.....NA	1.42
NASOMA.....	1.55
TONQUIN.....Q	1.24
MULLOY.....	2.63
WILSONVILLE.....V	2.42
CURTIS.....	3.78
DONALD.....D	2.75
BROADACRES.....	2.66
WEST WOODBURN RN	2.85
ST. LOUIS.....	2.13
CONCOMLY.....	1.78
WACONDA.....W	1.65
HOPMERE.....	1.25
QUINABY.....	2.24
CHEMAWA.....	2.95
DEAF SCHOOL.....	1.83
SALEM.....SA	50.82

SPECIAL RULES.

EAST BOUND TRAINS ARE SUPERIOR TO WEST BOUND TRAINS OF THE SAME CLASS. EXCEPTION: No. 55, 57 AND No. 59 ARE SUPERIOR TO No. 56, 58 AND No. 60, GARDEN HOME TO TUALATIN.

Tracks on Salmon St. from Front to West Park Sts., Portland, and on Tenth from Salmon to Flanders Sts., Portland, will be used as double track. (See Rule D 151.) Where meeting points are shown at Park Place and Stark St., meeting point will be on double track and not directly at station shown. In column "car capacity" prefix letter S indicates spur. Double track extends from Jefferson St. to Harrison St., and from Sherman St. to Garden Home. Gauntlet track between Harrison St. and Sherman St. will be operated as single track. Breaker between 600 and 1200 volt trolley current located at intersection Hood and Penoyer Sts., Portland. Westbound trains must stop before passing same and throw commutating switch to 1200 volt position. Eastbound trains will stop after passing breaker and throw commutating switch to 600 volt position. No. 5 and 13 will stop on flag at Garden Home to pick up passengers from Fourth District for schedule stops west of Garden Home.

Time Over District
Average Speed per Hour

FIRST DISTRICT—SALEM TO PORTLAND

Eastbound 3

Time Table No. 20 August 22, 1915	STATIONS	Distance from Eugene	Telegraph and Telephone Stations	FIRST CLASS																				Second Class		
				2	4	30	32	6	34	36	10	54	12	38	56	14	64	40	58	16	42	60	20	44	22	72
				The Owl	Local	Local	Local	Local	Local	Local	Limited	Local	Local	Local	Local	Local	Local	Local	Local	Local	Limited	Local	Local	Local	Local	Local
		Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily Ex. Sun.	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily Ex. Mon.		
PORTLAND.....DI	122.4	DNJ	A 6.55AM	A 7.30AM	A 7.40AM	A 8.30AM	A 8.45AM	A 9.35AM	A 11.00AM	A 11.35AM	A 12.05PM	A 1.45PM	A 1.50PM	A 3.00PM	A 4.10PM		A 5.00PM	A 5.30PM	A 5.50PM	A 6.50PM	A 7.05PM	A 8.00PM	A 9.20PM	A 10.00PM		
HOYT ST. STATION OW			6.53 ⁸¹			8.28 ⁵											5.28 ⁴¹	5.40 ¹⁵								
STARK ST.....	122.1		6.50 ¹			8.23 ⁸³	8.34 ⁵										4.49 ¹³	5.35 ⁴¹								
PARK PLACE.....	121.8					8.23 ⁸³	8.34 ⁵		10.52 ⁷								4.49 ¹³	5.35 ⁴¹								
JEFFERSON ST. STA. J	121.1	DNJ	6.35	7.10	7.25	8.15	8.30 ³³	9.20	10.45	11.15	11.50	1.25	1.30	2.40	3.50 ⁵⁷		4.45	5.15 ⁵⁹	5.30	6.35	6.50	7.40	9.05	9.45	4.45AM	
HARRISON ST.....	120.9		6.33	7.09	7.23	8.13	8.28	9.18	10.44	11.13	11.48	1.24	1.28	2.38	3.49		4.43	5.13	5.28	6.33	6.48	7.39	9.03	9.43	4.43	
SHERMAN ST.....	120.7		6.32	7.08 ³¹	7.22	8.12	8.27	9.17	10.43 ³⁵	11.12	11.47	1.23 ³⁷	1.27	2.37	3.48 ³⁹		4.42	5.12	5.27	6.32 ⁴³	6.47	7.38	9.02	9.42	4.42	
CORBETT ST.....	120.0		6.27	7.03	7.18	8.07	8.23	9.13	10.39	11.08	11.43	1.17	1.23	2.33	3.43		4.38	5.08	5.23	6.28	6.43	7.33	8.57	9.37	4.30	
VIEW POINT.....	118.9		6.23	6.58	7.13	8.03	8.17	9.10	10.37	11.05	11.40	1.12	1.20	2.30	3.40		4.35	5.05	5.20	6.25	6.41	7.27	8.53	9.32	4.19	
CAPITOL HILL.....	117.1		6.20	6.54	7.09	7.58	8.13	9.07	10.33	11.02	11.37	1.08	1.17	2.27	3.37		4.32	5.02	5.17	6.22	6.37	7.23	8.49	9.28	4.10	
MULTNOMAH MU	116.1	NJ	6.16	6.50	7.05	7.55	8.10	9.04	10.30	10.59	11.34	1.05	1.14	2.24	3.34		4.29	4.59	5.14	6.19	6.34	7.20	8.45	9.24	4.00	
GARDEN HOME GH	114.2	DJ	6.10	6.45	L 7.00AM	L 7.50AM	8.05	L 9.00AM	L 10.25AM	10.55 ³⁵	L 11.30AM	1.00	L 1.10PM	2.20	3.30		L 4.25PM	4.55 ¹³	5.10 ¹⁵	L 6.15PM	6.30	7.15	L 8.40PM	9.20	3.45	
METZGER.....	112.4	P	6.05	6.40		8.01			10.51			12.56		2.16	3.25			4.51	5.06		6.25	7.10		9.16	3.39	
S. P. R. R. CROSSING..	111.5																									
TIGARD.....VR	110.7	DJ	6.02	6.35		7.58			10.48			12.52		2.13	3.21			4.47	5.04		6.22 ¹⁵	7.07		9.12	3.34	
NILES.....	108.6	P	5.57	6.30		7.54			10.45			12.47		2.09	3.16			4.44	5.01		6.16	7.02		9.08	3.28	
TUALATIN.....NA	106.8	DJ	5.52	L 6.25AM		7.50			10.42			12.42		L 2.05PM	3.10 ⁹			L 4.40PM	4.57		L 6.12PM	6.56 ¹⁷		9.04	3.22	
NASOMA.....	105.3	P	5.48			7.45			10.39			12.38			3.07				4.54			6.53		9.01	3.18	
TONQUIN.....Q	103.8	NJ	5.44			7.41 ¹			10.37			12.34			3.02				4.52			6.49		8.58	3.13	
MULLOY.....	102.6	P	5.42			7.38			10.35			12.31			2.59				4.50			6.46		8.55	3.09	
WILSONVILLE.....V	99.9	DJ	5.35			7.33			10.31			12.25			2.52				4.45			6.40		8.50	3.00	
CURTIS.....	97.5	P	5.30			7.27			10.26			12.18			2.47				4.40			6.34		8.45	2.52	
DONALD.....D	93.7	DJ	5.22			7.20			10.21			12.10 ⁷			2.39				4.35			6.27		8.39	2.39	
BROADACRES.....	91.0	P	5.17			7.14			10.17			12.03PM			2.33				4.31			6.21		8.34	2.30	
WEST WOODBURN RN	88.3	DJ	5.12			7.09			10.13			11.58			2.28	A 4.17PM			4.27			6.14		8.29	2.22	
ST. LOUIS.....	85.5	P	5.07			7.03			10.08			11.52			2.22	4.11			4.23			6.08 ¹³		8.24	2.12	
CONCOMLY.....	83.3	P	5.02			6.58			10.05			11.48			2.18	4.07			4.20			6.04		8.20	2.05	
WACONDA.....W	81.6	DJ	4.58			6.54			10.02			11.44			2.14	4.03 ⁹			4.17			6.01		8.17	1.58	
HOPMERE.....	80.0	P	4.54			6.51			10.00			11.41			2.10	4.00			4.15			5.57		8.14	1.54	
QUINBY.....	78.7	P	4.52			6.48			9.58 ⁵			11.38			2.08	3.58			4.13 ⁹			5.54		8.12	1.50	
CHEMAWA.....	76.4	P	4.48			6.43			9.54			11.33			2.03	3.53			4.09			5.49		8.08	1.42 ²¹	
DEAF SCHOOL.....	73.5	P	4.42			6.37			9.50			11.27			1.57	3.47			4.06			5.43		8.02 ¹⁷	1.30	
SALEM.....SA	71.6	DNJ	L 4.35AM			L 6.30AM			L 9.45AM			L 11.20AM			L 1.50PM	L 3.40PM			L 4.00PM			L 5.37PM		L 7.55PM	L 1.20AM ⁷¹	
50.82			2	4	30	32	6	34	36	10	54	12	38	56	14	64	40	58	16	42	60	20	44	22	72	
			Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily Ex. Sun.	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily Ex. Mon.	
Time Over District			2.00	0.45	0.25	0.25	2.00	0.20	0.20	1.30	0.20	2.05	0.20	0.35	2.00	0.37	0.20	0.35	1.30	0.20	0.38	2.03	0.25	1.50	3.25	
Average Speed per Hour			24.7	20.8	19.6	19.6	24.0	20.7	20.7	33.8	20.7	24.3	20.7	24.5	25.4	27.1	20.7	24.5	33.8	20.7	22.6	25.0	19.6	27.7	14.5	

SPECIAL RULES.

EAST BOUND TRAINS ARE SUPERIOR TO WEST BOUND TRAINS OF THE SAME CLASS. EXCEPTION: No. 55, 57 AND No. 59 ARE SUPERIOR TO No. 56, 58 AND No. 60, GARDEN HOME TO TUALATIN.

Tracks on Salmon St. from Front to West Park Sts., Portland, and on Tenth from Salmon to Flanders Sts., Portland, will be used as double track. (See Rule D 151.) Where meeting points are shown at Park Place and Stark St., meeting point will be on double track and not directly at station shown.

Double track extends from Jefferson St. to Harrison St., and from Sherman St. to Garden Home.

Gauntlet track between Harrison St. and Sherman St. will be operated as single track.

Breaker between 600 and 1200 volt trolley current located at intersection Hood and Penneyer Sts., Portland. Westbound trains must stop before passing same and throw commutating switch to 1200 volt position. Eastbound trains will stop after passing breaker and throw commutating switch to 600 volt position.

No. 14 will stop at any station between Garden Home and Jefferson St. for the purpose of discharging passengers from points west of Garden Home.

No. 14 will stop at any station from Garden Home to Corbett St. inclusive. Sunday only.

SPECIAL RULES

Standard clocks are located at the Dispatcher's office, Hoyt Street Station, Portland, Salem and Eugene.

Registering Stations: Hoyt Street Station, Portland, Garden Home, Tualatin, West Woodburn, Salem, Albany, Gray, Eugene, Forest Grove, Woodburn and Corvallis.

- No. 1. Special Rules Supersede Rules and Regulations of Transportation Department.
- No. 2. Rule 83-A will not apply at initial stations which are not telegraph stations, and at telegraph stations except during office hours, or when an operator is on duty after office hours.
- No. 3. Register exceptions: At Tualatin Trains 2, 4, 20, 22, 15, 17, 19, 21, 55, 56, 57, 58, 59 and 60 only will register. West Woodburn is register station for Sixth district trains and 63 and 64 only. Gray is register station for Third district trains only.
- No. 4. All trains must obtain clearance cards before leaving Salem and Albany.
- No. 5. In column telegraph and telephone stations the letter J indicates telephone, letter P indicates telephone Jack for use with portable telephones.
- No. 6. Trains will be governed by the Interlocking Signal Tower Signals at Southern Pacific Crossing at Beaverton and Southern Pacific Crossing at Greenburg. All trains must approach Interlocking Signals under control, expecting to find Signal at "Stop" and Derail open. Westbound trains wishing to use passing track Beaverton will come to full stop at home signal, sound one long and four short blasts whistle. When lower semaphore blade is raised train may proceed.
- No. 7. Eastbound Passenger Trains will stop at any street intersection on Salmon and Tenth Street, Portland, for the purpose of discharging passengers. Second and Salmon Streets, Fifth and Salmon Streets, Tenth and Morrison Streets, and Tenth and Stark Streets, Portland, are regular stops for all Westbound Trains for the purpose of picking up passengers. Passengers will not be allowed to board trains at any other street crossing except the above.
- No. 8. Unless otherwise advised, Passenger Trains must not consist of more than three cars between Jefferson Street Station and Hoyt Street Station. Freight Trains or cars are not permitted to use tracks between Front and Salmon Streets, Portland, and Hoyt Street Station.
- No. 9. On Passenger Trains vestibule doors between coaches must be kept closed when made up in trains and under no circumstances will passengers be permitted to pass from one coach to another by stepping across.
- No. 10. Trap Doors must be kept down and side vestibule doors closed while trains are in motion. It is just as imperative that trap doors be down as it is that side vestibule doors be kept closed. Vestibule doors will be opened and trap doors up only when trains are making station stops.
- No. 11. When Passenger Cars are added to or taken off Passenger Trains trolley poles must be lowered from trolley wire before bus line is coupled or uncoupled. Fuses must not be renewed nor any part of the electrical appliances of motor cars touched or repaired until trolley pole has been lowered from the trolley wire. Glass cover over Automatic Relay must not be removed. Defective Relays must be reported at once.
- No. 12. Trolley pole must be lowered from trolley wire by means of a rope at all times. To lower trolley pole from trolley wire by getting on top of motor car and catching hold of trolley pole by hand will not be permitted; to do so is dangerous and may prove fatal. Trolley poles on double end control cars must be kept under hook when not in use, and must not be left suspended by retriever rope. But one trolley pole must be used between bridge three west of Corbett Street and Portland.
- No. 13. Derail switches are located on all Passing Tracks and Spurs where there is danger of cars running out. Derails must be left at derail at all times except when in use.
- No. 14. Junction switch at Garden Home when not in use will be left set and locked for First district Track.

SPEED RESTRICTIONS.

- No. 15. Reduce speed to twenty miles per hour between Fulton Park and View Point. Westbound Passenger Trains must not exceed schedule time between Multnomah and Garden Home. Eastbound Passenger Trains must not exceed schedule time between Multnomah and Corbett St. Eastbound freight and work trains must not exceed twenty miles per hour between Nasoma and Tualatin, and twenty miles per hour between Multnomah and Corbett St. Westbound freight and work trains must not exceed twenty miles per hour between Multnomah and Metzger, and

Garden Home and Whitford. Speed will also be reduced at following points and through cities covered by ordinance:

Greenburg—10 miles per hour over S. P. crossing.

Donald—20 miles per hour.

Salem—10 miles per hour.

Albany—12 miles per hour.

Harrisburg—8 miles per hour intersection of Fourth and Kelsey Sts., Third St. West depot; 20 miles per hour within city limits between hours 5:00 a. m. and 10:00 p. m.

Junction City—8 miles per hour.

Forest Grove—15 miles per hour, except 5 miles per hour between Pacific Avenue and Depot. Give proper warning approaching all street crossings.

- No. 16. At Hillsboro trains must reduce speed to ten miles per hour through city limits of Hillsboro. All trains will stop at crossing of P. E. & E. Railway, Sixth and Washington Sts.; also stop at crossing of P. E. & E. and P. R. & N. Railways, North Range and Washington Sts.

YARDS.

- No. 17. Portland Yard Limits extend from Hoyt Street Station to Abernathy Street. Salem Yard Limits extend from Hood Street to Melas. Albany Yard Limits extend from Gravel Pit Switch east of Albany to Coover. Eugene Yard Limits extend from Blair Street to Pearl Street.
- No. 18. In Portland Yard all trains, including light engines and motors, must approach all street crossings under control, stop before crossing tracks of another company. Portland Railway cars within one hundred feet of crossing shall be given right of way. Trains will not be required to stop for United Railway crossing, Tenth and Flanders Streets, Portland, but will reduce speed to five (5) miles per hour. Trains using Flanders Street track will flag this crossing. All trains must come to stop at crossing Portland Railway tracks at Corbett Street and sound one blast of whistle before proceeding. Portland Railway cars have right of way.
- No. 19. In Salem Yard, all trains, including light engines and motors, must approach all street crossings under control and stop before crossing tracks of Salem, Falls City & Western Ry. on Union Street, and Southern Pacific on Trade Street. All trains must use extra precaution in going across Commercial Street, reducing speed to ten (10) miles per hour. Eastbound trains must sound motor whistle, in addition to ringing bell, before crossing this street.

Trains will not be required to stop at following crossings with tracks of P. E. & E. Ry.:

Hood	Street
Center	"
Chemeketa	"
State	"
Commercial	"

but will approach and pass over these crossings under control and not exceed speed of ten (10) miles per hour. Freight trains will use Front street between Highland and Bellevue St. All trains, including light engines and motors will approach all street crossings under control. Look out carefully for P. E. & E. cars at Division and Chemeketa streets and stop before crossing tracks of S. F. C. & W. Ry. at Union street and S. P. tracks at Trade street.

Hood Street, Salem, is passenger stop for purpose of discharging through passengers from westbound trains, and picking up passengers on eastbound trains.

Union Street is flag stop for discharging passengers from Train No. 1 and receiving passengers on Train No. 64.

- No. 20. In Albany Yards, all trains, including light engines and motors, must approach all street crossings under control, and stop before crossing tracks of Corvallis & Eastern on Lafayette Street, and Southern Pacific on Railroad Street. Trains will not be required to stop before crossing tracks of P. E. & E. Ry. on Lyon Street, but will approach this crossing under control and not exceed speed of ten (10) miles per hour over crossing.

Freight trains will use Water Street track in Albany Yard Limits, between Leander, mile 76.2, and Coover, mile 78.5.

All trains using Water Street track are required by ordinance to stop at and sound whistle before crossing Callipooia Street, which is protected by stop boards.

All trains will stop and flag the four Southern Pacific crossings on Water Street, Albany

SPECIAL RULES—Continued

- No. 21. In Eugene Yards, all trains, including light engines and motors, must approach all street crossings under control.
Trains will not be required to stop for P. E. & E. Ry. crossings at Blair Street and at Willamette Street, but will approach and pass over crossings named under control and not exceed speed of ten (10) miles per hour.
Blair Street is a passenger stop for the purpose of discharging through passengers from westbound trains, and picking up passengers on eastbound trains.
- No. 22. Orengo yard extends from yard limit board five hundred (500) feet east of Fifth district junction switch to five hundred (500) feet west of Orengo Nursery Company's switch.
- No. 23. Posts have been placed at crossovers on double track between Portland and Garden Home. These crossovers have been designated as follows:
"A" is crossover located at Clay St., Portland.
"B" at Oregon Electric Shops.
"C" at Abernathy Street.
"D" at retaining wall.
"F" at Multnomah.
"G" at Barstow.
"H" at Garden Home.

No. 24. LOCATION OF OVERHEAD AND SIDE OBSTRUCTIONS.

Railway line clearance: Height from top of rail, fourteen feet; width, ten feet. Conductors must be absolutely positive that loads do not exceed these dimensions, and must not move cars greater than these dimensions without instructions from Superintendent.
Train employes are cautioned not to lean out of cab or cars while passing following overhead and side obstructions:
Two overhead bridges, Portland Lumber Company, between Harrison St. and Sherman St. Tualatin River bridge, just east of Tualatin.
Southern Pacific overhead bridge, just east of Tualatin.
C. & E. overhead bridge, Water Street, Albany.
Southern Pacific siding, Water Street, Albany, opposite Senders warehouse.
The two Portland Lumber Company overhead bridges, Tualatin River bridge, Southern Pacific overhead bridge just east of Tualatin, C. & E. overhead bridge, Water Street, Albany, will not clear men on top of box cars.
Engine bell on baggage motors must not be rung while passing under C. & E. overhead bridge, Water Street, Albany, as it will not clear trolley wire when ringing.
Double track between O. E. Shops and Abernathy Streets, Portland, has only 10-foot 9-inch centers. Passenger trains when meeting between points named will reduce speed to ten (10) miles per hour. Freight trains meeting or passing passenger trains between points named must come to full stop and see that nothing is projecting from train that will foul passenger equipment.

AIRBRAKES.

- No. 25. In addition to the usual inspection of airbrakes, after making up, setting out cars from, or adding cars to the train, motorman will sound one long blast of the whistle. Rear brakeman or conductor will then proceed to apply the brakes by opening cock at rear end of last car in train gently, only allowing enough air to escape to apply the brakes slowly and firmly. With the brakes applied a further inspection must be made to note possible defects. Motorman should watch gauge, and if proper reduction is made in train line, he will acknowledge same by two short blasts of the whistle. If car repairers are on duty, they will make this test at all terminal stations. All Eastbound trains except those stopping at Multnomah must make running test of airbrakes just before passing first road crossing east of Multnomah, bringing train to full stop.
- No. 26. Retainers will be turned up on eastbound freight trains from Multnomah to Corbett Street and on westbound freight trains from Multnomah to Greenburg and Garden Home to Beaverton.

BUSINESS TRACKS AND PASSENGER FLAG STOPS NOT SHOWN AS STATIONS ON TIME TABLE First and Second Districts			
Name.	Mile Post	Capacity	FLAG STOP FOR TRAINS.
Shops.....	2.1		2-4-30-54-56-58-60-53-55-57-59-43 only.
Fulton Park.....	4.6		All trains except 6-34-10-36-38-40-16-42-5-35-7-37-9-39-13-41-21.
Ryan Place.....	5.8		All trains except 6-34-10-36-38-40-16-42-5-35-7-37-9-39-13-41-21.
Shahapta.....	6.7		All trains except 6-34-36-10-38-40-16-42-5-35-7-37-9-39-13-41-21.
Maplewood.....	7.3		All trains except 6-34-10-36-38-40-16-42-5-35-7-37-9-39-13-41-21.
Barstow.....	7.8	57	All trains except 6-34-10-36-38-40-16-42-5-35-7-37-9-39-13-41-21.
Nesmith.....	9.0	4	All trains except 10-16-5-13.
Pine Knot.....	9.5		4-6-56-60-15-17-19-55-57-59 only.
Greenburg.....	10.7	9	All trains except: 10-16-5-13.
Trece.....	12.5		4-6-56-60-15-17-19-55-57-59 only.
Bonita.....	13.1	5	All trains except: 10-16-5-13.
Durham.....	14.0	4	All trains except: 10-16-5-13.
Golf.....	15.1		All trains except: 10-16-5-13.
Tualatin Mill.....	15.2	5	Not Passenger Stop.
Cook Spur.....	17.4	7	Not Passenger Stop.
Cahalin.....	19.3	2	Not Passenger Stop.
Downing.....	19.8	2	Not Passenger Stop.
Clutters.....	20.4	4	Not Passenger Stop.
Prahl.....	23.3	3	All trains except: 10-16-5.
Wallace.....	24.3	3	All trains except: 10-16-5.
Butteville.....	25.6	5	All trains except: 10-16-5.
Fargo.....	26.5	3	All trains except: 10-16-5.
Fellers.....	29.6	6	All trains except: 10-16-5.
Loganville.....	32.8	3	All trains except: 5-9-10-16.
Claxtar.....	47.0		All trains except: 10-16-5.
Highland.....	49.2		All trains except: 10-16-5.
Hood St.....	49.5	7	See Special Instructions 19.
Hazelau.....	53.4		5-7-9-13-10-16-20-22 only.
Finzer.....	56.2		All trains.
Halls Ferry.....	57.4	21	All trains.
Loewi.....	61.0		All trains.
Wintel.....	66.2		5-9-10-20 only.
Geary Street.....	76.6		All trains.
Awbrey.....	114.7		All trains except: 10-13.
Ross.....	116.8		5-9-21-2-16-22 only.
Avard.....	117.9		All trains except: 10-13.
Blair Street.....	121.9		See Special Instructions 21.
Third District			
Orleans.....	84.5		All trains.
Fourth District			
Firlock.....	8.8	2	All trains.
Milkapsi.....	18.3	2	All trains.
Fearing.....	18.5	2	Not Passenger Stop.
Moffat.....	20.2		All trains.
Rhoades.....	20.6	5	Not Passenger Stop.
Ninth St., Hillsboro.....	20.9		All trains.
Sixth St., Hillsboro.....	21.0		All trains.
Varley.....	23.7		All trains.
Haynes.....	26.0	4	All trains.
Race Track.....	26.5		All trains.
Pacific Street.....	27.2		All trains.
Fifth District			
Equity.....	4 Miles West Orengo	4	
Sixth District			
Scollard.....	35.1	3	All trains.

RULES GOVERNING AUTOMATIC BLOCK SIGNAL BETWEEN GARDEN HOME AND JEFFERSON STREET, PORTLAND.

No. 501.

SIGNAL	OCCASION FOR USE	INDICATION	NAME
Color	The signal will appear when	For enginemen and trainmen	As used in rules
(A) Red	Block is not clear	Stop	Stop-signal
(B) Yellow	Block is clear Second block in advance is not clear	Approach next signal prepared to stop	Caution-signal
(C) Green	Block is clear	Proceed	Clear-signal

Type of signal used is three (3) position upper left hand quadrant semaphore. The governing arm is displayed to the left of the signal mast as seen from an approaching train, and indications are given by position as follows:

Horizontal—as the equivalent of A.
Diagonal —as the equivalent of B.
Vertical —as the equivalent of C.

No. 502. Block signals control the use of the blocks, but, unless otherwise provided, do not supersede the superiority of trains, nor dispense with the use or the observance of other signals whenever and wherever they may be required.

No. 503. Block signals for a track apply only to trains running with the current of traffic on that track.

No. 504. When a train is stopped by a block signal, it may proceed when the signal is cleared. If not immediately cleared, it may proceed (see A and B).

(A) On single track, preceded by a flagman to the next clear signal, except that if the next signal in advance can be plainly seen to be a caution-signal or a clear-signal, train may proceed under control without sending a flagman ahead, expecting to find track impassable. Or—

(B) On double track at once under control, expecting to find track impassable.

No. 506. When a train is stopped by a block signal which is evidently out of order, and not so indicated, the fact must be reported to the Superintendent by wire from next open office.

No. 507. Lights must be used upon all block signals from sunset to sunrise, and whenever the signal indications cannot be clearly seen without them. At such times if lights are not burning, or if a white light is shown where a colored light should be, trains must ascertain and be governed by the day signal indication before passing signal.

No. 508. Rule No. 504A will govern use of block through gauntlet track between Harrison and Sherman Streets, Portland.

No. 509. Sign post, "BLOCK LIMIT," is located 500 feet east of first signal westbound track, west of Jefferson Street. All trains having schedule meeting points or meeting points made by special order at Jefferson Street, will not pass "BLOCK LIMIT" post until eastbound train has cleared west end of gauntlet track, Harrison Street.

Yard engines, work trains or special movements of any character must not pass "BLOCK LIMIT" post westbound track on time of eastbound first-class trains. Sherman St. time to apply.

No. 510. The opening of any switch will set and hold signal of that block at stop until the switch is closed. The opening of any switch at either end of a double track crossover will hold signals on both main tracks at stop. If either end of a siding crossover on single track is opened, it will set and hold the signals that control the block or main track to which it leads, in both directions, at stop. Neither switch nor crossover must therefore be opened, until the movement of the train is to be made and must be closed immediately after the movement has been made and the switches locked. When it is necessary to stop at any signal, the front wheels of a train must be at least twenty (20) feet back of the signal, in order to avoid fouling the circuits.

No. 511. Miniature signals, known as switch indicators, located at crossovers and all main line switches in territory covered by block signals, are not yet operative. All movement through crossovers and main line switches in block territory must be made under protection of flag against current of traffic.

LIST OF SURGEONS AND HOSPITAL DEPARTMENT INSTRUCTIONS.

Surgeons will attend, when called upon officially, to all cases of accident occurring to employes or passengers. In cases of sickness it is the intention to limit medical service to the locality or town where a surgeon resides, unless some urgent necessity exists, for which distinct official authority must be had in accordance with established regulations.

Railway officials are required to call on the nearest authorized surgeons whenever practicable, when surgical or medical services are needed. When such are accessible the Hospital Fund will not be responsible for bills for medical services rendered by any other physician. In the event of a sudden emergency, arising from accident, if necessary, proper surgical aid should be procured until the arrival of a regularly appointed surgeon, when the case should be placed in his charge, and in no case should the services of any but an authorized company surgeon be continued at the expense of the Railway Company or of the Hospital Fund after such surgeon is able to assume charge of the case.

Boarding and nursing are furnished only at hospitals with which the Company has made arrangements. We are not responsible for bills incurred elsewhere unless specially authorized or approved by the Chief Surgeon, and then only in critical cases of injury or illness occurring in the discharge of duty.

Stretchers are located at following points: Portland, O. E. Shops; Garden Home; West Woodburn; Albany.

TABLE OF TRAIN SPEEDS

If a train covers the distance between two mile posts in 65 seconds the speed is 55.3 miles per hour.

SURGEONS

DR. E. B. McDANIEL, Chief Surgeon, Electric Bldg., Portland.
Phones: Marshall 1496; A-1496.

DR. ROY C. McDANIEL, Electric Bldg., Portland.
Phones: Marshall 1496; A-1496.

DR. G. H. DCUGLAS, Local Surgeon, Multnomah.

DR. W. D. WOOD, Local Surgeon, Hillsboro.

DR. QUENTIN TUCKER, Local Surgeon, Forest Grove.

DR. A. C. SCHROEDER, Local Surgeon, Tualatin.

DR. O. P. OVERTON, Local Surgeon, Woodburn.

DR. W. B. MORSE, Local Surgeon, Salem.

DR. C. H. ROBERTSON, Local Surgeon, Salem.

DR. F. E. BEAUCHAMP, Local Surgeon, Albany, Ore.

DR. W. H. DALE, Local Surgeon, Harrisburg.

DR. D. P. LOVE, Local Surgeon, Junction City.

DR. B. F. SCAIEFE, Local Surgeon, Eugene.

Sec. Per Mile	Miles Per Hour	Sec. Per Mile	Miles Per Hour	Sec. Per Mile	Miles Per Hour
47	76.6	57	63.1	67	53.7
48	75.0	58	62.0	68	52.9
49	73.4	59	61.0	69	52.1
50	72.0	60	60.0	70	51.4
51	70.6	61	59.0	75	48.0
52	69.2	62	58.0	80	45.0
53	67.9	63	57.1	85	42.3
54	66.6	64	56.2	90	40.0
55	65.4	65	55.3	100	36.0
56	64.2	66	54.5	105	34.5

WATCH INSPECTORS:

A. L. HAMAN, Chief Time Inspector, St. Paul, Minn.

A. L. W. FIELD, Portland.

H. W. BARR, Salem.

C. O. ANDERSON, Albany.

E. M. HERRING, Dispatcher

S. A. GAGNON, " "

H. M. HUSTON, Asst. Chief Dispatcher

A. KASE, Chief Dispatcher

E. B. HEATH, Trainmaster

P. McKAY, Asst. Superintendent