

STREET-RAILWAY EXTENSION

TROLLEY CARS MAKE CITY REACH OUT INTO COUNTRY—
MUCH NEW CONSTRUCTION AND MANY NEW CARS BUILT

MOST powerful among the agencies which have extended the urban population of Portland into the surrounding country are the street railways. In the days when all who could not afford to ride horseback or drive in a buggy from their homes to their business had to walk, the people naturally were crowded together in the small area which was within walking distance. When the horse-car first furnished cheap transit, the people began to spread out from the center, but the horse-car was so slow that economy of time placed a limit on the distance to which people could travel daily. But with the advent of the cable and trolley car there came a decided change. They were fast and of large capacity and ran in all directions at frequent intervals. The cable cars have gone out of use and trolley cars have become universal and have gained speed so fast that they now whisk their passengers to and from their homes in a few minutes.

Aided by these means of quick transit, the people have climbed the heights on the west and perched their homes at points formerly considered inaccessible; they have thickly studded with homes the rolling hills and level plateau eastward as far as Lewis and Clark to St. Johns. The ambition of the average American to have a detached house surrounded by his own garden, and if possible to win it himself, and to be able to reach the further suburbs, they are not content with a mere residence lot, but take an acre of ground, on which they grow their own vegetables, plant their orchards, keep chickens, to say nothing of pasturing a cow on the adjacent vacant ground. All this is placed within the reach of the man of moderate means by the trolley car.

But the trolley car is reaching out still farther; not content with suburban, it is engaging in interurban traffic and invading the field of the steam railroad. As each car carries its own power, a trolley line can be operated much more cheaply than a steam line, and a steam line, cars can be run more frequently than heavy trains of steam cars and stops can be made at more frequent intervals. Trolley cars can also climb hills which are insurmountable to steam locomotives. The trolley car thus enables many people to live in the country while doing business in the city, and to enjoy the conveniences of city and pleasure of country life at the same time. It enhances the value of suburban property, but enables people to escape the heavy taxes of the city and to live more cheaply. It has reversed the trend of population, which has long tended to congestion in the great cities, and has caused the people to spread from the cities into the country.

The greatest work in the extension of lines within the city has been done by the Portland Railway Company during the last year. It has built a mile of line on Thurman street from Nineteenth to Twenty-third; two and a half miles on Ford street from Washington to Portland Heights at Spring street; over two miles in the extension of the Irvington line from Union avenue to Twenty-second street; three miles in the extension of the Albina line from Union avenue to Maryland avenue; and one mile on the line up East Burnside and East Pine streets toward Mount Tabor, which will be completed this year. It has begun operating the Vernon and Irvington line on the East Side and the Sixteenth and Thurman-street line on the West Side, and will put the Albina line in operation today.

At the opening of 1903 the Oregon Water Power & Railway Company had in

operation a line of 13 miles to Oregon City and another of seven miles to Mount Tabor and Lewis. During the year it has extended the Lewis line to Casadere on the Clackamas River, a distance of 36 miles; has begun the construction of a new line south from the Madison-street bridge through Sellwood to Lents, eight miles; and has extended the Mount Tabor line to the East Side reservoir, one mile.

The construction of new lines is but a part of the improvement in the street car system of the city made in the past year, for improvement of existing lines has absorbed as much money as extension. Thus the City and Suburban Railway Company, while it has not made any extensions, has been busy with construction in all directions. It has built

shop, office and room for carmen. The Portland street railway companies have adopted the practice of building their own cars, having the steel castings made in a Portland foundry, and building the cars and trucks and doing the woodwork in their own shops. The City and Suburban has added during the year 17 open and 23 closed cars of the standard type, and all built at its own shops, and is now operating 88 cars. The Portland Railway Company has adopted a new type of car, 36 feet long with long vestibule at each end, the old style being only 18 feet long. It has turned out during the year four open and 16 closed cars, has remodeled four cars, built four freight cars and has eight closed passenger cars under construction. It is now operating 45 cars, of which nine were added during the year, and has given

PORTLAND STREET RAILWAYS.	
	Miles.
City & Suburban	57 1/4
Portland Railway	47
Oregon Water Power & Railway	97
Total	193 1/4
LINES BUILT IN 1903.	
	Miles.
Portland Railway Company—	
Extension of Irvington line	2
Extension of Albina line	3
Extension on Thurman street	2 1/2
Ford-street line	2 1/2
East Burnside and East Pine street	1 — 3/4
Oregon Water Power & Railway Company—	
Lents to Casadere	36
Madison street, via Sellwood to Lents	8
Mount Tabor line extension	1 — 45
Total new lines	54 1/2

an entirely new line from Northern Hill to St. Johns, 600 feet long, which shortens the distance to St. Johns about a mile and a quarter. It has laid double track on the Woodstock and Richmond line from East Fifth and Harrison to Thirty-second and Clinton streets; on Williams avenue from Cherry to Stanton; on Montgomery from Eleventh to Fourteenth streets; on Morrison from Front to Third; on Yamhill from Front to Fourth; on Third from Salmon to Main; on the East Ankeny line from Twenty-eighth to Thirtieth, and from East Crouse to East Gilliam; on the Brooklyn line from East Fifth and Ellsworth to Eleventh and Brooklyn; on the Montavilla line from the gravel pit to Hubbard street; on the Lower Albina line from Stanton to Skidmore street. The St. Johns line has been electrified and a sub-station built to supply power for it.

The Portland Railway Company has improved its existing lines despite the fact that it has been busy with new construction. It has relaid two miles of track on Washington street with Simpson grooved rail in a concrete bed with a Belgian block pavement. Altogether this company has spent \$250,000 in new lines, and improvement of old lines. Considerable improvement has been made in the Oregon Water Power and Railway Company's plant. In addition to the large amount of new construction in progress, a dock 150 feet long has been built at Madison street, together with a terminal ground and power station of 700 horse-power. Another power station of 600 horse-power and a transforming station of 600 kilowatts have been built at Oregon City. Depots are being built at Gresham, Boring, Barton, Eagle Creek and Casadere, and a corrugated iron warehouse is building at Madison street. The City and Suburban Railway Company has built an addition 35x200 feet to its East Ankeny car barn, with a work-

more frequent service on all its divisions in response to the demand for increased service. The Oregon Water Power and Railway Company's lines are equipped with 23 double truck passenger motor cars, all provided with air brakes, 14 double truck trailers, four freight motors, 76 flat cars and ten box cars. All the freight equipment is constructed under M. C. R. rules and is equipped with patent couplers and automatic air brakes. The three street railway companies employ an aggregate of 838 men in the regular operation of their lines, besides the large forces regularly occupied in construction and repairs during the summer.

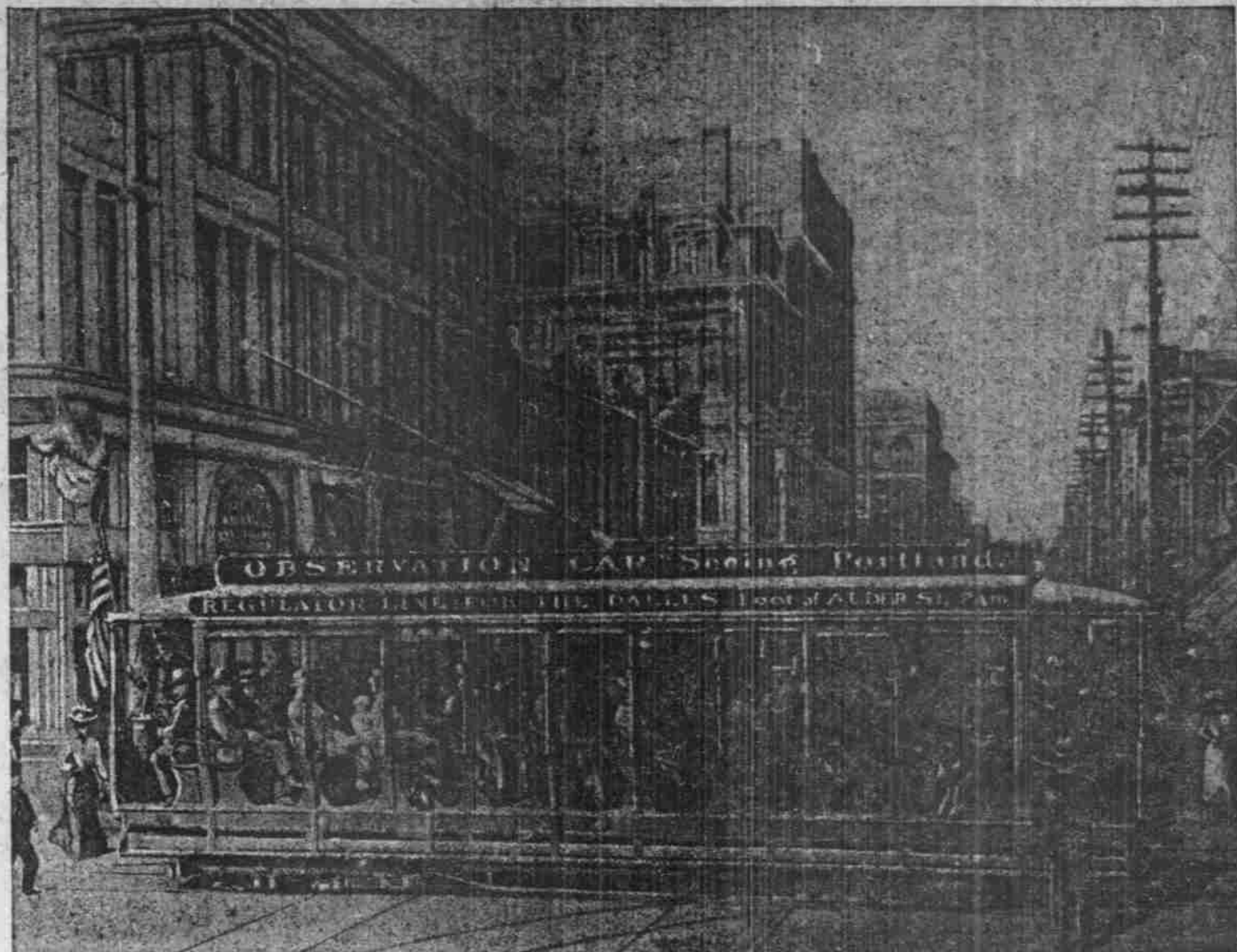
SAWMILL FOR BEND.

Minnesota Lumbermen May Build in Deschutes Valley.

Bend Bulletin. It is reported that J. A. Ryan, who is acting as agent and cruiser for the Johnson-Powers-Dwyer people, Minnesota lumbermen, in the Deschutes country, has bought the homesteaded ranches of Montgomery and Palmer up the river in 18-11. Montgomery's cattle are said to have been included in the transfer, the price of all the Montgomery property being \$4000. On the assumption that the report is correct, it is supposed these Minnesota people are making preparation to open lumbering operations here as soon as the railroad transportation is provided. The Montgomery and Palmer ranches are well adapted to growing hay and grain for horse-feed. Another thing that points to immediate activity by these men is the fact that they recently took title to about 20,000

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acres of timber land on the west side of the Deschutes, between Bend and Braham Falls, which they had been holding 10 years or more in the form of assigned certificates. This had been taken with state lieu scrip. The original applicants had assigned the certificates to the Powers people, who, by holding the unperfected title, avoided payment of taxes on the land. The title is now perfected and the land subject to taxation and it seems probable that something is to be done in the direction of working up the timber. In the past Fall these lumbermen have been very active in inspecting the Des-

chutes timber and looking into the general situation. No announcements were made, but if it should turn out that they are the first millmen to get established here their recent actions would be fully explained. They have large capital and operate on a very extensive scale.

To Prepare Irrigation Bill.

Spokane-Review. Governor McBride will appoint a commission to prepare a state irrigation bill, as requested by the Spokane Chamber of Commerce, provided competent men for such a commission will

take hold of the work and trust to the next Legislature for compensation for their services. National irrigation in Washington has been almost blocked for lack of state laws regulating the appropriation, title to and use of water. The Spokane Chamber of Commerce and other commercial bodies have been induced to petition the Governor to appoint a commission to prepare a code on irrigation to be submitted to the next Legislature. This move has been suggested by the representatives of the National irrigation service. In reply to a letter received from L.

G. Monroe, secretary of the Spokane Chamber of Commerce, Governor McBride said in part: "I fully realize the importance of this question, and would be glad to lend any assistance I can. You know, of course, there is no statutory authority for the appointment of such a commission, and there is no fund available out of which such commission could be paid for the services recommended. I will appoint such a commission if men, competent to serve upon same can be found who will take hold of the work and trust to the next Legislature for compensation for services rendered."

BOHEMIA
THE BOHEMIA

Story of the Development of a Great Mining District
as Told by a Great Man.

AT THE REQUEST of R. S. Linthicum and other stockholders at Baltimore, Md., Professor William F. Tonry, Ph. D., after personal examination of the properties of the Crystal Consolidated Mining Company, in the Bohemia Mining District, Oregon, submitted this report. The material portions of this report follow: Assessment work has been done in the Bohemia Mining District, Oregon, under survey now being made. The Crystal Consolidated Mining Company is located at Eugene, Lane County, Or., on page 150, book 1.

The Bohemia Mining District is situated along the crest and both slopes of the Cascade Mountains, 4500 to 6000 feet above the sea. It extends about 20 miles east to west, and 10 miles north to south. Most of the district lies in the southern part of Lane County. Cottage Grove, on the southern Pacific, 144 miles south of Portland, and 628 miles north of San Francisco, is the gateway to the district. Extensive mineral-bearing quartz ledges cover the entire area. There are completed 16 miles of a branch railroad line from Cottage Grove into the district; remainder is under construction. Excellent and abundant water prevails everywhere. Cottage Grove affords supplies.

Available timber at slight cost sufficient for years to be at hand. The Oregon Securities Company is erecting a power-house, where machinery will be run by electricity, a nearby stream affording the power.

Free gold was discovered in the district in small veins near the headwaters of City Creek in 1858. A five-stamp mill was put in in 1875, running two years. The Bohemia region was nearly forgotten till 1891, when the first important discovery was made. Since then a five-stamp mill was run until a 10-stamp mill succeeded it. The Oregon Securities Company acquired the Munk's ledge. It is installing 40 stamps on the opposite side of the mountain and putting through a tunnel to deliver its output at one point by electric tramway.

The Champion put in a 10-stamp mill in 1895, and the Noonday a 20-stamp mill in 1896. The district contains over 3000 claims. Returns are expected on money invested in working the mines, not stock speculations. The older companies have substantially realized already the younger ones will do so, according to my judgment of ore produced, and their work in progress.

In the Crystal Company are eight claims of 20 acres each—the Crystal, El Calado, Mountain Lion, Knickerbocker, Transvaal, Myrtle, Eva J. and Twin. Upon each 1000 feet of tunnel work has been done on this vein. The outcrop is traceable for 1500 feet. The ore on the Crystal is free-milling and basic, with a nearly vertical dip. About 70 feet of tunnel work has been done on this vein. The outcrop is traceable for 1500 feet. The ore on the Crystal is free-milling and basic, with a nearly vertical dip. About 70 feet of tunnel work has been done on this vein. The outcrop is traceable for 1500 feet.

The El Calado, Mountain Lion and Knickerbocker are in one group. The company is energetically developing the El Calado vein, which runs through the El Calado and Mountain Lion for 2000 feet. The vein tunnels are driven in this vein over 300 feet along valuable soft gangue material. Crustaceous northeast of 12 feet show ore deposits, affording richly continuous. The ore body and is free-milling for the entire distance, samples panning many free gold colors. No. 3 is also driven 250 feet along the ore body. Its ore is about the same quality as No. 2, but has more quartz, and reveals more color in panning. The company is building a wagon road from this group, 1 1/4 miles distant, to the new Champion Creek wagon road. Many thousands tons of ore have been exposed, and a stamp mill will soon be in operation.

A vein distinct from that in the El Calado has been exposed in the Knickerbocker claim. This is on the northern side of the Mountain Lion. It was located last year, but only 3200 has been expended in its development. Between these two veins is the outcropping of another large vein. This, and also the Knickerbocker claim, will be developed by cross-cutting from tunnel No. 3. The ore from these tunnels will run at least \$15 per ton, and a harvest of many years' dividends is already in sight.

The Transvaal claim, which about its feet of development work, but will be vigorously continued. It is located near the outlet of Champion Creek, close to the Oregon Securities Company's new wagon road. It is accessible the year around. The ore is basic, requiring concentration for smelting product.

The Myrtle, Eva J. and Twin claims are in the eastern section of the district, northeast of the Bohemia mine. They are not readily accessible at present, which has retarded any great development. For 4500 feet they show a fine vein of free-milling ore. Some of the surface croppings assay as high as \$40 per ton in free gold. The claims contain three shafts each 15 feet deep and a 6-foot tunnel on the Eva J. claim.

Gold is found (1) in place, (2) free in rock, unmineralized with other metals, (3) in rock mixed with copper, silver, lead, zinc and iron ore. The supply of gold in place is always limited. The extraction of free gold from its native quartz should not cost more than \$1.75 per ton of rock; from basic ore, when mixed with other metals, not more than \$2 per ton. Rock containing more quartz and less basic can be profitably worked, and is worth \$3. From this there must be deducted, expense \$2, lost in tailing \$0.50 cents, leaving a net profit of \$0.50 per ton.

I have taken the free gold of the Crystal Consolidated Mining Company, and have obtained results of over \$100 per ton. The business of the company is able and honestly conducted, and, as far as my own observations and inquiry will permit, I will say that money invested with this company will be safe, and will bring dividends. Respectfully,

Wm. F. Tonry, Ph.D.

Baltimore, Md.

Professor William F. Tonry was born in Ireland. He was educated in Boston. After his public school course he took a Latin course. Then he completed a six-year college course, following it with a three-year post-graduate course in the natural sciences. After that he studied medicine in Washington and Baltimore, gaining his degree of M. D. from the Baltimore Medical College. Subsequently he was adjunct professor of chemistry at Georgetown University; assistant chemist, Surgeon-General's office, U. S. Army, Washington, and many other positions.

For 20 years he has been engaged as an expert in nearly every legal case in Maryland, British West Indies. He has submitted reports upon all kinds of coal and mineral deposits in Maryland, Pennsylvania, West Virginia, North Carolina, the Black Hills, Oregon, Minnesota and other states.

PROPERTIES OF THE

Crystal Consolidated Mining Company

LOCATED IN THE WONDERFUL

BOHEMIA MINING DISTRICT

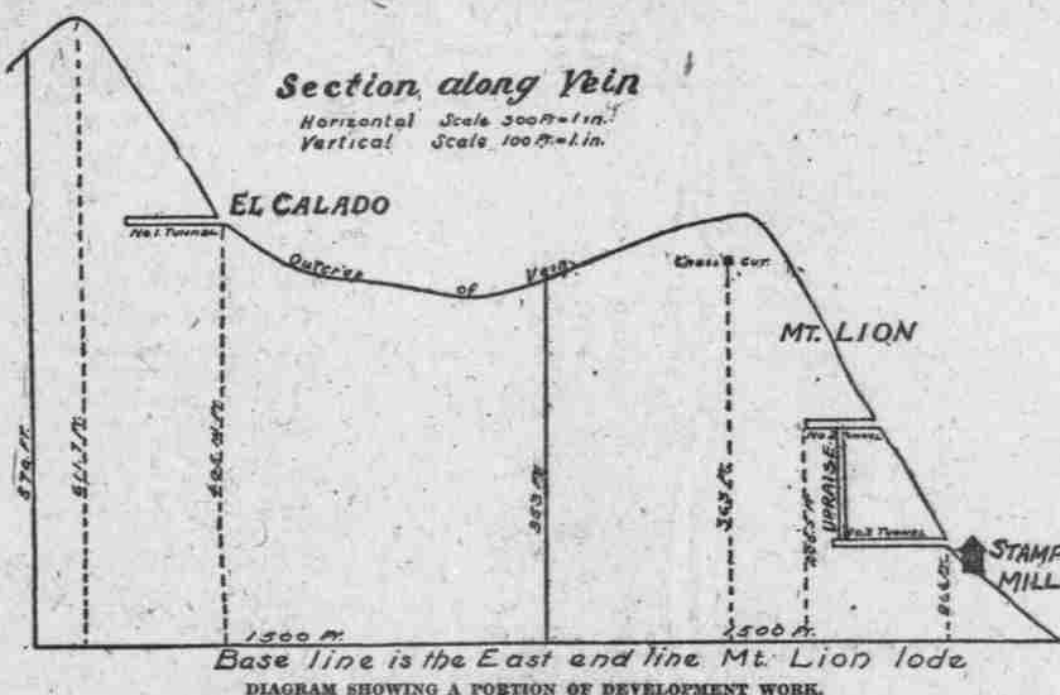


DIAGRAM SHOWING A PORTION OF DEVELOPMENT WORK.

THIS COMPANY is in the mining business exclusively. It has been engaged in actively developing its mines for more than a year, and now has exposed thousands of tons of free milling ore which will average to run on the plates at least \$10 per ton.

The Company has recently completed a wagon road from Champion Creek to its mines at an expense of \$6000. At a cost of \$10,000 it has erected a stamp mill with a capacity of 25 tons per day, and there is enough ore in sight to keep the mill engaged, at its present capacity for handling, for more than the average lifetime of an individual.

NOTICE TO STOCKHOLDERS AND OTHERS

Notice is hereby given that the first dividends will be declared during the coming summer. The stock allotted by the Company for sale will soon be exhausted, and no further blocks of the same will be offered for sale.

Address all communications to

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314 Equitable Bldg., BALTIMORE, MD.

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