

VAST COAL BEDS ON COWLITZ WILL SUPPLY PORTLAND

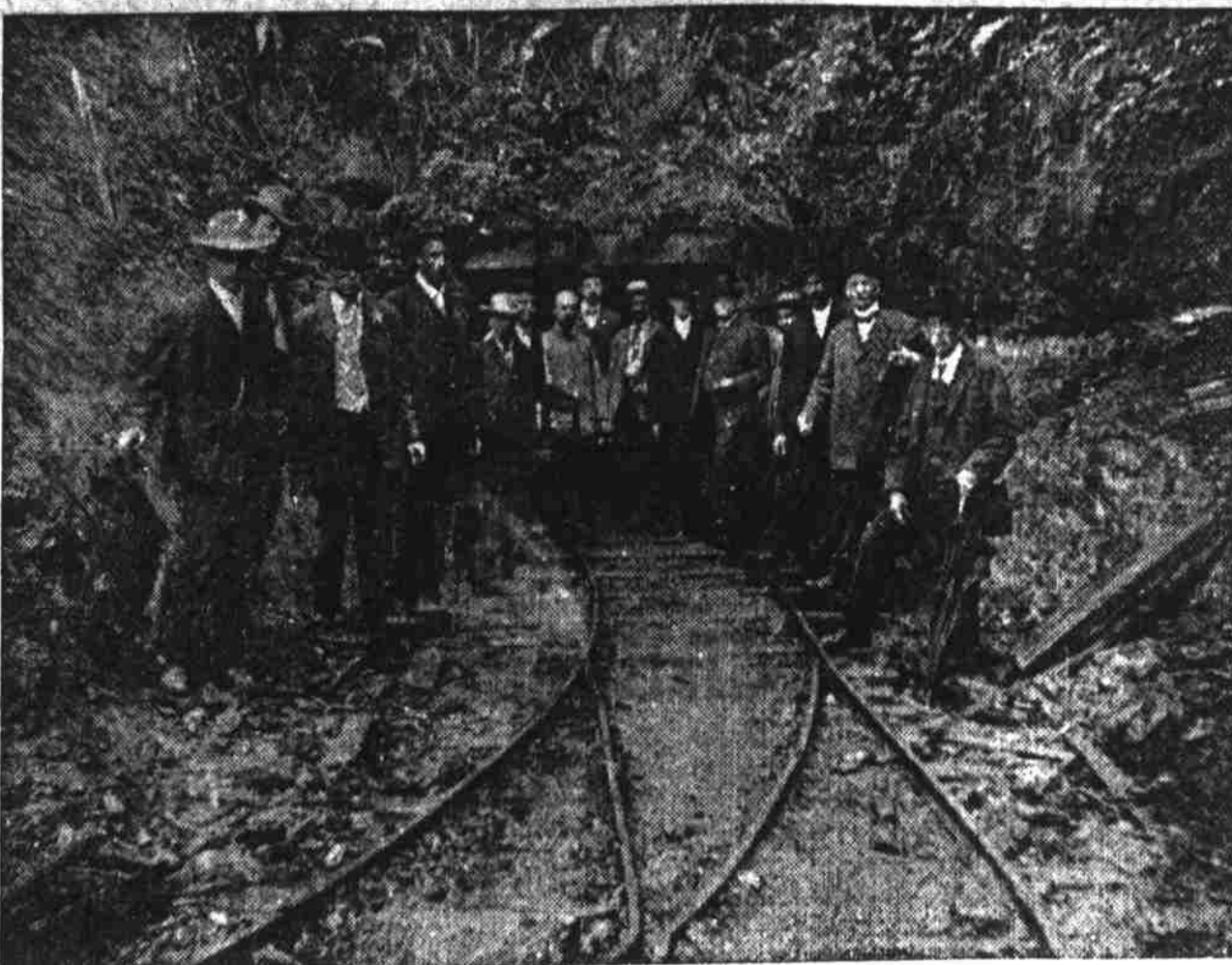
Within a stone's throw of Portland, a matter of only 55 miles, gangs of men have been working away night and day to dig from the dark recesses of deep tunnels a portion of the vast layers of lignite coal which nature piled in succeeding layers in the valley of the Cowlitz river.

Work is being diligently pursued at five different points where the outcroppings have uprooted the grass and shrubbery on the surface and far back in the uninviting tunnels whose atmosphere is fogged with the oily smoke of miner's lamps, powder, picks and shovels are busy 24 hours each day tearing down the black walls and constantly becoming deeper and deeper under the overtopping mountain.

Within a few weeks it is expected that Portlanders and people in other sections of the northwest will become familiar with the product known as Cowlitz coal, and not a great distance in the future it is more than likely that passengers on the Northern Pacific will not have to be told that Ostrander, Washington, where coal bunkers are in contemplation, is the shipping center of an immense region interlined with valuable veins of fuel.

Settlements at Tunnel's Mouths.
Ostrander lies only a half dozen miles from the mouth of the Cowlitz. It is only a way station now, but back in the hills where development is being carried forward as rapidly as men and machinery can do the work, are the commercial stratas which have already built a healthy settlement about the mouths of the various tunnels and which later will add buildings, population and a thriving industry to the station on the banks of the river.

Development of the coal region back of Ostrander has not been carried forward to such an extent as to determine the exact resources of this immense



Stock Holders Standing at Entrance to Upper Tunnel.



Quarters for Day and Night Shifts Are Being Rapidly Erected.

stretch of country. Near the base of the mountain which is being perforated with ominous looking holes there is a long tunnel, both sides of which are lined with coal veins. To the left of this a matter of 500 feet and at an elevation above of half that distance another tunnel has been driven.

Both sides of this, too, are walls of jet black, and still farther to the left of this tunnel on the same level, still a third tunnel, and holding relatively inky formation which spells dollars and cents to the owners.

Extent of Beds Unknown.
These tunnels break through the various stratas of fuel like a hole left by a straw thrust into a layer of cake, but regarding the immense quantities which nature has stored above and below to the right and left only the crudest kind of a guess can be made.

Nearly a mile away on the farther side of the immense mound of earth, and at a depth fully 75 feet below the upper tunnel, a fourth tunnel has been driven at the base of the mountain. Here the same formations are encountered, here the same lignite layers are as found in each of the others.

This lower tunnel is the longest. Its walls are eight-foot veins of coal, running parallel to those cut during the progress of the tunnels at the other levels. Engineers state that the dip of the veins here, analogous to those on the west slope, and holding relatively the same positions, demonstrate beyond a doubt that this whole mountain is built upon a foundation of coal veins, interspersed with thin stratas which, owing to their softness, makes the mining of the fuel a comparatively simple task.

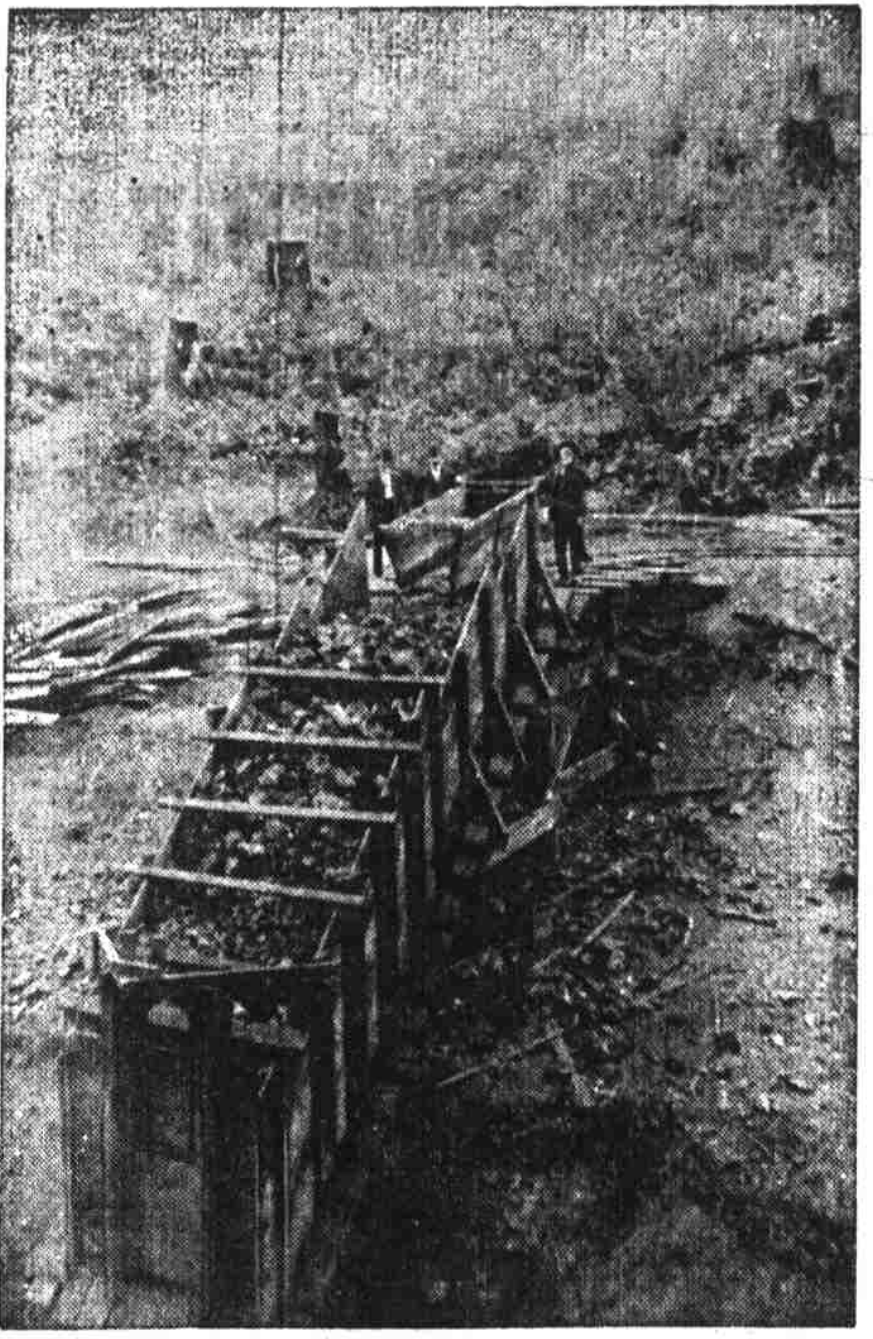
But way down in the depths of that huge abutment of earth, scattered over acres and acres of ground, sinking parallel to the heated regions of the globe there, no one knows and no one can tell until tunnels and shafts and powder and power have extracted it, how many millions of tons of coal lie buried.

Great Quantities in Sight.
Those who are developing the field, however, are satisfied to work away persistently and hopefully on the immense quantities already in sight. Exposures of the veins already cut furnish an inexhaustible field of labor and the work of years to come is already mapped out.

The task of bringing the coal from the tunnels' mouths to the Cowlitz river where it is planned to load it on barges then low into Portland, necessitates the building of both a trestle and bunkers, the latter to be constructed on the river's banks.

Eight of way from the base of the mountain to the Cowlitz has already been cleared, and more than half of the three-quarter mile stretch of rails on which the coal cars will run is completed. There yet remains, in addition, the ballasting of the track.

An advantage always sought in mining operations is that which is present on the Cowlitz properties, is the accessible elevations above the point of



Temporary Bunker Which Houses First Products of Upper Tunnels.

outlet for the mining product—a simple matter, not generally recognized, but which saves the enormous expense of lifting the fuel before it is finally

loaded into the tram cars. Gravity here will be a great saving feature; the coal will be handled but once after leaving the tunnels and before being loaded

onto barges, thus saving a big item in the cost of production.

Tunnels have been sunk at easy stages up the side of the mountain. From the lower one the coal can be loaded directly into the cars which stand on the track leading down to the bunkers on the river, and from the upper tunnels high up on the side of the peak the coal is dumped from cars into bunkers which feed down the precipitous slope to other cars on the miniature transportation line.

Not many minutes will be wasted in handling the fuel after it leaves the tunnels. A down-hill haul to the Cowlitz necessitates but little transportation power being brought into play; a quick run without stops can be made, the coal dumped into the bunkers overhanging the river, and the empty cars taken back for another tonnage, all in the twinkling of an eye.

Bunkers on the River Bank.
So kindly has nature parceled out her favors in forming the valley of the Cowlitz that the Consumers' Coal company, which is developing the property, has made plans for the erection of bunkers on the bank of the river which will hold but 500 tons. Large bunkers are unnecessary owing to the lay of the country and the speed with which these storage places can be filled from a gravity track which will require nothing more than brakes to prevent the heavily loaded cars from running at too great a speed to their destination.

Along the slopes of the mountain, near the upper tunnels where a shelf of level ground was conveniently placed in the making, the developing company has erected its own company of blacksmith shops and other quarters necessary to carry on the work which is being hastened by a force of 70 men. Coal taken from the tunnels is used in the forges and meals are cooked on stoves whose surface is made red-hot by the product which is used to find a market in Portland and elsewhere.

Cowlitz coal, however, is not new. More than 30 years ago the veins now being worked were discovered and some extensive development was done. The same properties now in the hands of the Consumers' Coal company were leased by the Anchor Coal company of Seattle and some of the same tunnels from which gray miners emerge today were constructed nearly two decades ago.

Market Awaits Development.
But the market for the product at that time was not as inviting as it is at present. Cordwood in Portland, which was then a town of only 50,000, sold for \$1.75 a cord. But with a drop in the market, coal was unobtainable, and the market for lignite was dead.

As a result of this condition the Anchor company, unable to operate its product at a price which would net a profit, lapsed on some of its leases, and, resuming an attempt to annul the contracts which had signed, Cowlitz coal and some of the same tunnels from which they emerged only a short time ago.

During the interim the market grew, fuel once valueless became worth five times the price it commanded 20 years ago, and with the introduction of modern methods of mining, Cowlitz coal was taken from the tunnels in the Washington valley and placed on the market at a cost not greatly exceeding \$1 per ton.

Of the 849 acres of ground throughout which coal croppings have been found and which are owned and controlled by the company now operating in the Cowlitz field, only the fractional part of one small portion of it has been touched. Years of labor and production will not greatly affect the enormous supply which lies beneath the surface, and as depth in the tunnels is obtained the product coming from the more extensive points where neither water nor air has had a blighting influence on the quality of the fuel, the grade increases the texture and worth.

Quality Shown by Analysis.
Surface croppings taken from the valley of the Cowlitz show some remarkable values in the following analysis. In comparison with it is given an analysis of New Kentucky coal, the latter taken from the southern Illinois coal fields, which are supplying vast quantities of fuel in the east.

New Kentucky.	
Water	4.85
Combustible matter	86.38
Fixed carbon	58.43
Sulphur	1.80
Ash	1.80

Cowlitz County.	
Water	12.75
Combustible matter	81.15
Fixed carbon	57.80
Sulphur	.21
Ash	8.10

Few of the oldest and most extensively developed coal districts in the country can boast of any better surface showing than is found in the above analysis, which has been tested by coal experts from all sections of both the northwest and the east.

There are several exclusive features about the Pianola which have been responsible for its world-wide popularity. One of the most important of these is the Metrostyle, which makes possible the correct interpretation of the music played, enabling anyone, even those not familiar with music, to render any piece in just the exact time intended by the composer, including all the little variations and shadings. This valuable feature alone places the Pianola in a class by itself.

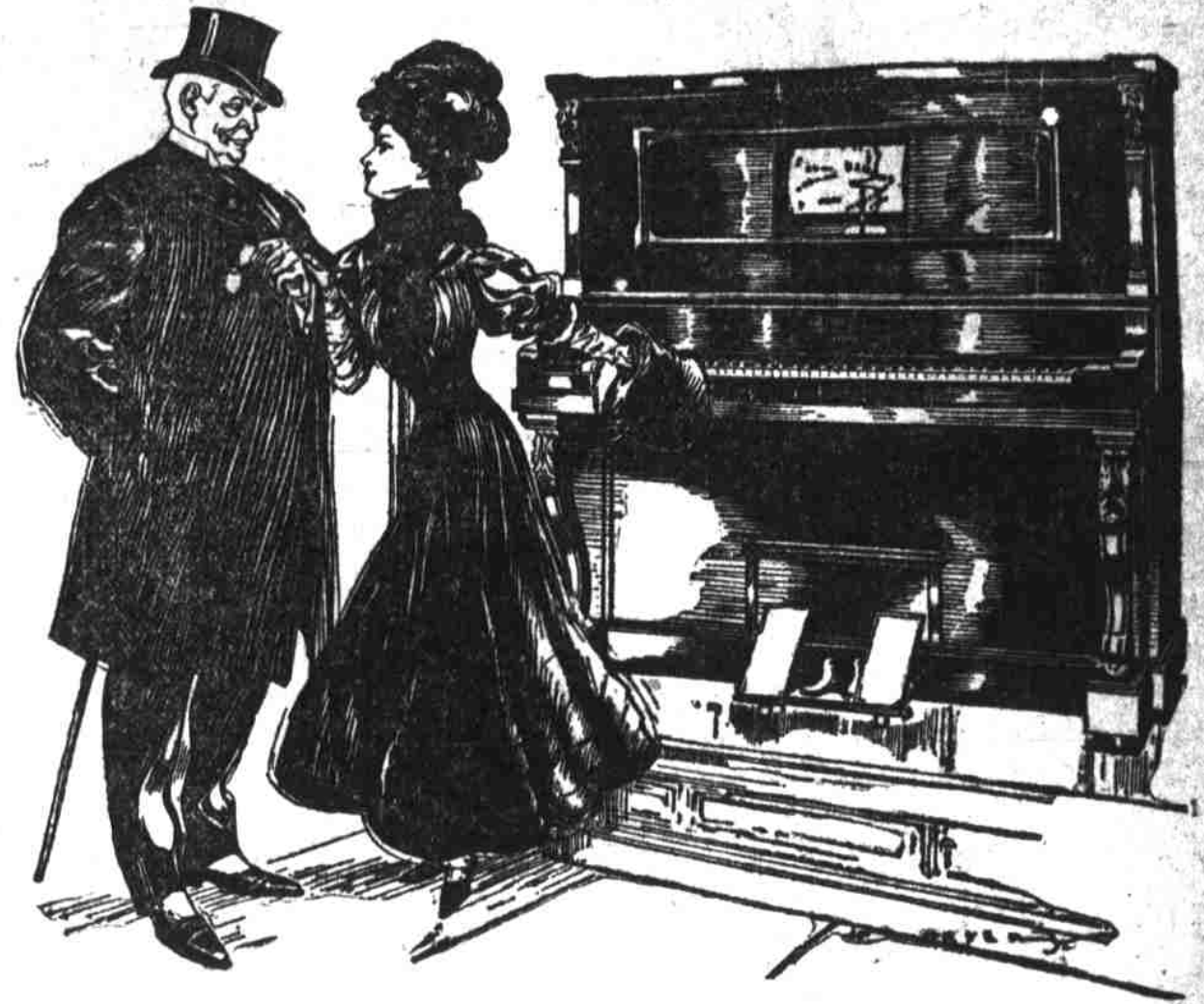
Our Pianola concert season will open early in the fall, and we are already making arrangements with many well-known soloists for appearances. These recitals will be held in our spacious concert hall, and the plans contemplated make certain the most enjoyable series of musicals we have ever given. Admission will be complimentary, as in the past, and we shall be pleased to have any of our journal readers who are interested in the Pianola question send their names and we will be glad to mail them tickets at the proper time.

Our Pianola Library has recently been enlarged with additional space and now contains between 20,000 and 25,000 rolls of music. This gives Pianola owners a selection that is not duplicated in another city on the Pacific Coast.

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OFFICE HOURS: 8 A. M. to 5 P. M.; 7:30 to 8:30 P. M.; Sundays, 9 to 1. Phone Main 3119. ELEVEN YEARS IN PORTLAND.

PERSONAL

Mr. and Mrs. L. E. Lewis have returned after an absence of a few months in San Francisco and southern California. They are stopping at the Hotel Eaton.

Mrs. Frances Amelia Hodges of New York City is visiting Mrs. Monroe Goldstein, 355 Sixth street. Mrs. Hodges is the niece of Senator Theodore B. Reed of Detroit, Michigan, and is en route to the California metropolis at Chicago.

Henry Bettman of Seattle, a son of L. Bettman of the Columbia apartments, arrived in Portland to make his home. Mr. Bettman is a violinist of coast renown. He formerly lived in San Francisco and is now a member of the violin department of the University of the Pacific at San Jose. In California it is said that he was responsible for making it possible to hear such artists as Godowsky, Bloch, Zeligler, Travell, Catherine Fiske and others for 50 cents where they could not formerly be heard under 100 cents. Bettman spent eight years in study abroad at Leipzig, Brussels and Frankfurt-on-the-Main. He studied under Yeave, Heaman, who is now head of the violin department of the Chicago College of Music and other European masters. He has taken rooms at the Columbia.

BRUCE ENTHUSIASTIC.

Dr. J. Whitcomb Brougher, pastor of the White Temple, returned yesterday with Mrs. Brougher from a trip to southern California. Dr. Brougher will preach tomorrow morning at the White Temple, giving some of his impressions of the "City of the Angels." The public library with much regret is losing the services of Miss Eleanor Gleason, who has been the head of the catalogue department for the past two years. She is giving up library work and returning to her home in Rochester, New York. Her place is being filled by the appointment of Miss Annette G. Munroe of Bristol, Rhode Island. Miss Munroe, who is a graduate of Wellesley college and Pratt Library school, comes to the library after a wide experience in eastern libraries and will be a great addition to the staff. John P. Fink, late business manager of the Pendleton Tribune and a well-known newspaper man in the northwest, is in the city on his way to Tacoma, where he will go into the real estate business with A. E. Grafton, formerly manager of the Tacoma Ledger and Tacoma Daily News. Fink has had much experience in business matters and his friends predict success for him in his new field.

Says Coming Concert Season Will Excel All Before—Talks About the Pianola.

"Yes, it's undoubtedly to be the greatest Pianola season in all our experience," said Manager Bruce of the Pianola Department of Eilers Piano House, yesterday. "Never before has there been such an active interest taken by the public in the player-piano question as has been demonstrated during the past few months, and present inquiries have been keeping us almost at wit's end to meet the demand for Pianola Pianos. Our recent broad challenge to all other local dealers for a competitive test of the different makes of player-pianos, which failed to find a single dealer brave enough to risk a comparison, is one of the most forceful arguments we can set forth as to the supremacy of the Pianola. But it is hardly more than could be expected, for the Pianola has reached such a marvelous state of perfection that music-lovers generally are awakening to the new sense of enjoyment that is now to be realized from the piano, the greatest of all home musical instruments, which with the Pianola can now be played by anyone."