

WAST REGRADE IS MAKING PROGRESS

Two Years Will Be Required to Complete Work on Goldsmith Hill.

GUILD LAKE BEING FILLED

Hydraulic Giants Transform Abrupt Hill in Northwest Part of City Into Terraced Sites for Fine Residences.

"We are making Westover Terrace out of Goldsmith Hill, and doing the initial work of changing Guild's Lake from a rough to a parade ground," is the way E. L. McAllister, one of the engineers of the Lewis-Wiley Hydraulic Company, characterizes the regrading being done in the northwestern part of the city, in a district of which the Forestry building and its little park, monuments of the Lewis and Clark fair, are the center and the pride.

The public has inadequate conception of the magnitude of this unique and remarkable piece of work. The operations have been progressing day and night for several months and bid fair to continue for two years more before the whole hill is surfaced over so as to be accessible, attractive, "home" property instead of being a defiant invitation to the Mazamas to try their skill.

Vast Scope of Work Outlined.

It is difficult to give the average person a familiar and accurate measure of the volume of earth to be moved, which is about 2,500,000 cubic yards. That is, roughly, just about the amount of earth moved in the famous Jackson-street regrade in Seattle, by the same men and with the same machinery that are employed on this undertaking, and which required about 22 months' steady work for completion.

It may be said that the volume is about equal to 30 buildings like Olds, Wortman & King building, with a few Minor & Frank buildings and an Imperial Hotel building added to account for the odd corners and extra knobs that appear here and there. The material removed would cover the ground to the height of an ordinary two-story building from Yamhill street to Washington and between the river and Sixteenth street.

The nearest point to the business district on the 55 acres of high ground being improved is at the head of Melinda avenue, just north of St. Vincent's Hospital. The tract stretches west beside the Kings Heights improvements to Macleay Park and is bounded on the north and east by the Cornell road up to its intersection with Twenty-ninth street.

No Abrupt Banks to Be Left.

The city is spread out before it like a panorama, with Willamette Heights, Fordham Heights and the Nob Hill districts in the foreground, the lower city, the river and the East Side immediately beyond and Hood, Adams and St. Helens in the majestic background. King's Heights rises 500 feet above it on the south.

There will be fewer than 300 building sites in the terrace when completed and when compared with some of the large additions like Laurelhurst, King's Heights or Eastmoreland, it is a small addition.

No attempt is made to level off the hill or to reduce it to a uniform slope ending against a high, steep clay bank at the edge of the property. The depth of earth to be removed in places as much as 140 feet. Toward the edges of the tract, where it joins King's Heights on the south and Macleay Park on the west, the amount of excavation is gradually reduced so as to leave no abrupt banks at all. The whole tract when finished will be a series of terraces up which winds a broad boulevard on an easy grade of 1 per cent, making it as easily accessible as the head of Washington street.

Earth Melts Like Snow.

The upper end of Lovejoy street, the approach to the Cornell road, has a grade of 10 per cent; so that if that avenue of approach to the property is used, the steepest part of the road is passed over between Twenty-fifth and Twenty-sixth streets really before the new addition is reached.

In the course of the work a volume of earth equal to a five-story building covering a full block disappears in every month of actual operation, melting like snow under the streams from the giants, and hurrying down the big flume on top of the trestle in a stream that would float a good-sized rowboat, to settle finally in the lake below.

As soon as the surplus earth is removed from a part of the property, another giant slices down from another part of the hill some of the top soil to form a proper surface for the vegetation that is soon to follow. Here was Goldsmith Hill, covered with heavy timber and thick underbrush of vine maple, alder and Oregon grape. Presto! Change! Here is Westover Terrace with electric-lighted winding automobile drives and rows of young shade trees in parking strips, all worked out in Park Expert Olmsted's happiest vein, without restrictions or directions other than that his plans should make the property as attractive and, incidentally, as valuable as possible.

New Foundation Made.

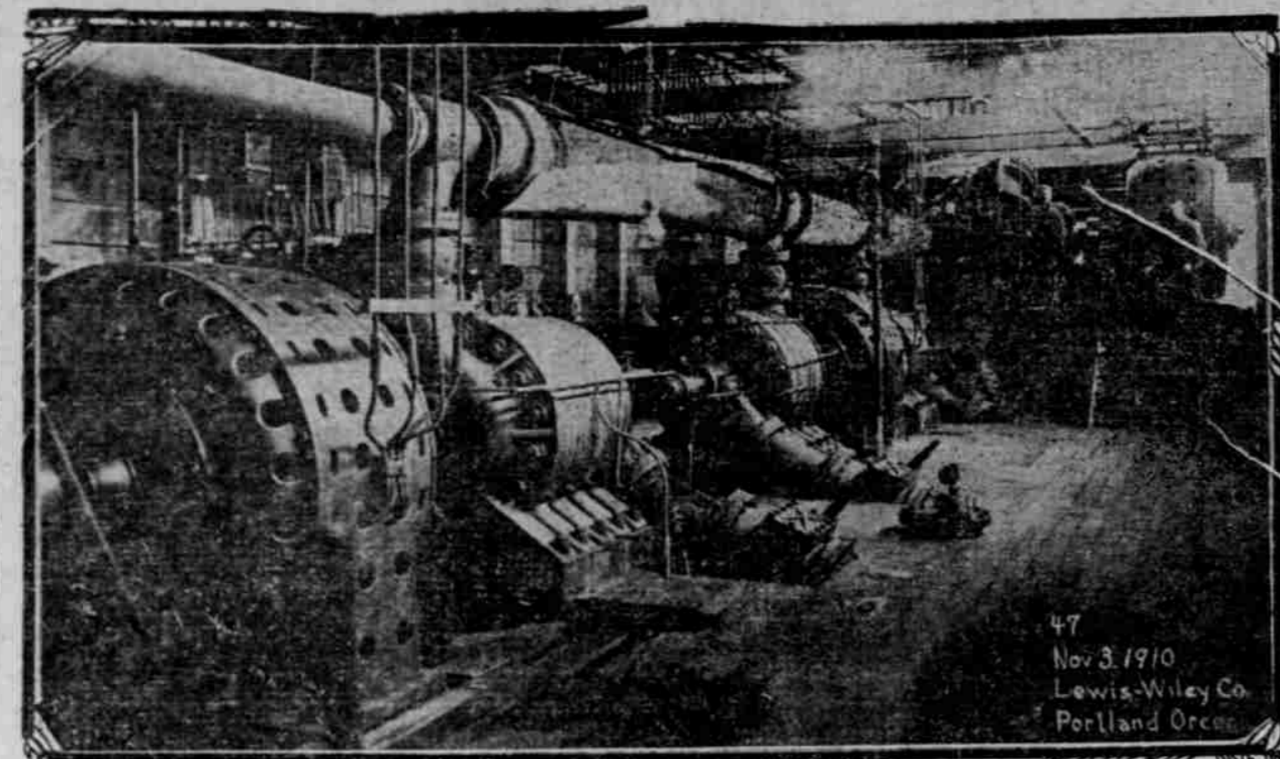
The big trestle stretches half a mile, from the pit where the gravel composing the hill is excavated, to the lake ground where it is deposited to be the foundation for future big buildings or Architect Bennett's "greater Portland" railway yards.

Where the work is so laid out that the water cannot be conveniently returned to the lake, within the same property below, excavation will be done "dry" by steam shovels. The first of this dry work is under way above Nob Hill Terrace, between two 12-inch Lovejoy street. About 1000 cubic yards will be moved by the shovel in this corner, making a broad, winding continuation of Melinda avenue above and substantially parallel to the Cornell Road. Another shovel will soon join the first, following along like two giant plows one behind the other.

Giant Power Plant Used.

The water to accomplish the hydraulic portion of the work is pumped from Guild's Lake, coming up two 12-inch lines of wire-wound wood stave pipes made in Portland. The pipes are carried by the trestle, which also sustains the flume for return of the spoil. The pump-house is situated at Twenty-ninth and Nicolai streets, and the foundation was laid on the bottom of the lake at low water before any filling was done. The first earth brought down was used to make a dike or embankment around the pump-house in present the high water from flooding the machinery, and the pump-house is now in a filled tract of many acres in

VIEWS SHOWING HOW WATER IS BEING USED TO TEAR DOWN STEEP HILL IN PORTLAND

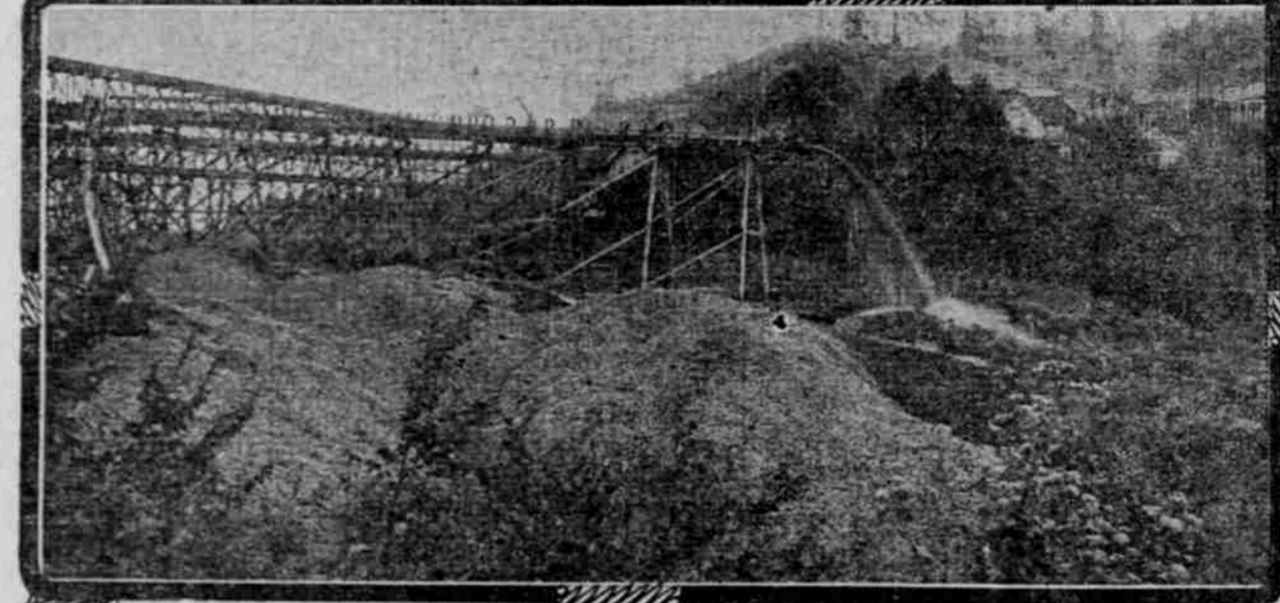


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Nov. 3, 1910
Lewis-Wiley Co.
Portland, Oregon



GRADING PLANT, SHOWING POSITION OF EXCAVATOR AND DIRT CHUTE TO FILL LAKE

CUTTING DOWN GOLDSMITH HILL



BEGINNING OF FILL IN GARDNER GULCH



SLICING OFF EARTH AFTER A CAVE-IN

extent, secure from any danger of flooding.

There are four five-stage Worthington turbine pumps just as they were used on the Seattle work, with an additional pump to give the greater pressure needed for this work. There are three Westinghouse motors driving the five pumps, all of which are direct connected; that is the pump shafts are coupled directly to the motor shafts without belts or gearing. When working at full power they require 2200 horse-power to drive them and deliver 500,000 gallons of water an hour to the pipe lines at a pressure varying between 200 and 300 pounds a square inch, according to the demand.

Wooden Pipe Astounds Engineers.

Eastern engineers, who have seen the work above, and the water is directed against the bank through hydraulic giants in streams varying from two inches to four and one-half inches in diameter. The force of the streams undermines the lower part of the bank and the weight of the earth above brings down the sand and gravel from the working face, which is at present 100 to 120 feet in height in front of the giant, after which the pipe men

direct the streams against the loose pile of material until it is all washed into the sluiceways and goes down the flume to the lake. The water is used over and over again, having plenty of oom in which to settle the grit before it again returns to the pumps.

Sunday to Be Only Stop.

The power is supplied by electric power from the Portland Railway, Light & Power Company's plant at what is said to be as low a rate as has ever been made for power in the city. Probably this company is the largest single customer the power company has outside of its own street railway operations.

graded preparatory to being paved.

The Doernbecher Manufacturing Company has a steam shovel at work cutting away the bank at the east end of its present plant. The company owns 10 acres in that vicinity and the ground is being cleared for the foundation of the chair department soon to be erected on the new place. Several hundred cubic yards of earth are being moved and used to fill up the company's ground northeast of the present plant.

Eastward Sullivan's Gulch is becoming a considerable business district. The main line of the O. W. R. & N. passes through this section.

Eugene Man Buys Farms.

William Porter, of Eugene, has bought the Duckworth farm of 305 acres, situated one mile north of Elmira, Lane County, for \$6000. Mr. Porter has recently bought a number of fine farms west of Eugene. He recently sold a large tract of timber land in Douglas and Coos counties to Eastern capitalists and is putting his money into farm properties.

GOODSELL ADDITION ACTIVE

Streets Being Graded Preparatory to Laying of Pavement.

Extensive improvements are being made in Goodsell Addition on Sandy boulevard near East Thirtieth street. This addition lies on both sides of the boulevard and the streets are being

Villa Tract in Rose City Park Sold

G. C. Craig and A. B. Slauson have bought from Hartman & Thompson the Villa Tract in Rose City Park, consisting of 52 lots. The consideration was \$25,000. The property faces on the Alameda and extends from East Forty-seventh street to Weymouth Lane. It adjoins the O. W. Taylor piece. Messrs. Craig and Slauson bought on speculation.

Practical Apple Orchardist

Wanted by a Large Orchard Company

A large California Corporation is preparing to place upon the market 1300 acres of select apple land in a district that is destined to be the Rogue River section of California.

The land will be developed as a commercial orchard and sold on the unit plan.

The Corporation desires to secure the services of a practical apple orchardist—one experienced in planting, caring for and bringing trees to the point of bearing and in gathering and marketing the crop.

The Company will give this man the entire charge of the development and care of this orchard. We will pay this man a salary commensurate with his services and reputation.

He will be expected to invest at least \$5000 in the enterprise.

The Company will furnish absolute evidence that the district has the climate, the soil and the irrigation facilities specially adapted to the growing of high-grade apples.

The directors and stockholders of the Company are business men of high standing in their community. The proposition calls for a man of large experience who can furnish high-grade references. Only those possessing these qualifications need apply. Address, for full particulars—Box 91, Bishop, California.

NEW TOWN SHOWS LIFE

NORTH PLAINS, 60 DAYS OLD, IS PROGRESSIVE.

Has Lighting and Water Systems, Graded Streets and Sidewalks. Commercial Club Forming.

The town of North Plains, on the United Railways, while only 60 days old, has its own lighting and water systems, graded streets, sidewalks, water tower and depot. More than 20 buildings are occupied or in the course of construction.

North Plains has been selected as the metropolis of the Tualatin Valley, the New Hill Empire, and the United Railways now makes North Plains its terminal. Eventually this road will go through to the sea.

The Cornelius Gap tunnel, 4000 feet long, will soon be ready for use. It is announced that cars will be running through the tunnel within the next three weeks. This will do away with the old winding road over the high hills, giving a uniform grade and reducing the running time from Portland to North Plains to 60 minutes.

Believing that it pays to advertise the community, several of the enterprising citizens of North Plains have taken steps to organize a commercial club and become identified with the Oregon Development League. A week-

ly paper is to be established at North Plains sometime the present month.

The engineering department of the Ruth Trust Company, owners of North Plains, has made a report on progress at the new town and an interesting item is that the street lights will be burning Thursday night, the date set to perfect organization of the new commercial club.

The Tualatin Valley has been cultivated almost a century, but until the United Railways extended the line from Burlington to North Plains the

valley was without transportation. The promoters of North Plains believe there will be a town with a population of 2500 there within two years.

Ex-Wife of 6 Takes Maiden Name.

VANCOUVER, Wash., March 11.—(Special)—After having been married six times Mrs. John Brown has secured the permission of Judge Donald McMaster, of the Superior Court, to be known by her maiden name, Miss Agnes Thibodeau.

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KENTON NATIONAL ADDITION

If you are working in or near Kenton, you should have a home in this new tract, because you can save your carfare each day, which mounts to the interest on your lot. **Just think this over.**

This addition is in the center of Kenton and borders on the great manufacturing district. There are several large factories in operation at present, and three of the larger ones are within 200 feet of National Addition.

If you are an investor or a homeseeker, you should see this beautiful tract and select a location before all the choice lots are gone. A large number of people are visiting National Addition every day.

Call at our office and get a folder showing the exact location and views of the factories and business houses adjoining. Or fill in the coupon below and mail it to us today.

Our salesmen and automobiles are at your disposal, ready to take you out to the tract at a minute's notice.

Co-Operative Realty Co.

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