

WHY IMPROVE THE COLUMBIA SYSTEM

State Engineer Lewis Draws Picture of Possibilities of Future Enterprises.

WORLD MARKETS VISIONED

Transportation Would Cheapen, Canals Would Follow, Irrigation Benefit and Farmers and Laborers Be Better Paid.

The following is a portion of the address delivered by John H. Lewis, State Engineer, before the recent Portland meeting of the Columbia and Snake River Waterways Association:

"If a team of horses on a good macadam road can move four tons, as compared to 10 tons on steel rails and 200 tons when hitched to a canal boat, then why has not water transportation held the field against its competitors? With this apparently great advantage in favor of water transportation, then why are our navigable rivers not more extensively used?"

"We have recently discovered that the cost of handling freight in cities is so great, compared with the cost of hauling for short distances up to about 100 miles, that the transportation charge can practically be ignored. For greater distances than 100 miles, the depth and width of channel and velocity of the water may be such as to still give the advantage in rates to the railroads. Water channels must have a margin of depth, over draft, to allow for the 'squat' of the boat when under way, and to obviate the 'drag' which results when the boat is at the bottom, and also ample width to reduce wave-wash and consequent damage to the banks.

"Power Enthusiasts Not Unreasonable. To improve the navigability of a stream, where the quantity of freight and saving on rates will not justify the expenditure, is like building an immense power plant where the quantity of power to be generated is so limited as to make it impossible to earn interest and operating charges. The water power enthusiasts are not so enthusiastic for the public construct power plants far in advance of the market. They could doubtless furnish better proof that cheap and abundant power, with reasonable transportation facilities, would stimulate interstate water transportation to a greater extent than would a similar expenditure to improve navigation facilities.

"The water power enthusiasts, rather than ask for something which is economically not sound, are devoting their energy to finding a market for this power, as, with a market, the power will be developed under proper economic conditions.

"Could not navigation on the Upper Columbia and Snake River be brought about more rapidly by the navigation enthusiasts through uniting with the water power crowd and all urging the necessary legislation to make possible the establishment of great electric iron and steel plants, nitrate fertilizer plants, electric smelters and other industries, thus creating a market for vast quantities of electrical power?"

"By developing this power through the construction of great navigable streams, we would thus secure the canalization of our rivers without cost to navigation, and at the same time the resulting industries would produce vast quantities of heavy freight which would justify considerable expenditures in addition, such as the improvement of navigation between these dams.

"Irrigationist Would Benefit. The irrigation enthusiasts would then join in such a programme, as its accomplishment would mean cheap power for pumping water to arid lands and lower freight rates in marketing farm products.

"The labor organizations would be interested, as great manufacturing plants would require an enormous supply of labor. The farmer will support such movement, as it will afford him fertilizer without paying the export duty of \$11 per ton to the Chilean government, and which would be returned to him when he comes. He would eventually get cheap power for light, heat and other uses on the farm, and the power transmission lines would be gradually extended over the state from these plants.

"The timber owners could be enlisted, as waste wood products of the mill and forest could be converted into charcoal and sold to the electric smelters. The various surplus and by-products could probably be disposed of at a profit.

"Electric power, if supplied at low cost, could be used in the fraction distillation of this waste wood, as absolute temperature control is one of the requisites for success. This would assist in solving our cut-over timber land problem, as the charcoal and other by-products from stumps and waste wood will be used for electricity, if a market for such products can be found. The solution of this cut-over timber land problem is of equal importance with that of irrigation for the development of the state.

"Land Would Increase. The land owner would be favorably inclined toward such a programme, as great industries would be developed through cheap fertilizer and transportation, would bring a rapid increase in population and corresponding increase in land values.

"The commercial and professional men would all join in support of the movements as their business and prosperity depend entirely upon the growth and prosperity of the community. The regular lines of vessels carrying fertilizer, lumber, fish, fruit and other commodities to all parts of the world would make of this section a commercial center of great importance.

"If we can ignore state lines in looking at this problem and think of the Columbia River basin competing with the world for all industries, requiring cheap power and with its industries supplying world markets, we would come to a better understanding of the problem. If this power cannot be developed and used in the manufacture of commodities for world markets, in competition with Norway and other countries, then it is of no value. Our swiftly flowing streams cannot be canalized and our possibilities for development will be greatly limited.

"I am in favor of development by private capital under strict public control, that hasten such development. I believe the example of Norway should be followed. The public should construct a demonstration power plant and furnish power at such low rates for a few years as to interest capital in undertaking the construction of iron and steel, fertilizer and other technical industries, on a working scale. These experimental plants would at the same time pioneer the field for a larger and more rapid development to follow, but would also afford the people complete and accurate information as a basis for wise legislation."



HOME OF THE PACIFIC BRIDGE COMPANY, ON THE NORTHWEST CORNER OF EAST WATER AND EAST SALMON STREETS.

PIPE LINE PLANNED

Milwaukie Hopes to Tap Bull Run Source of Supply.

ENGINEER FIGURES COST

Improvements of Many Kinds Now Up to City Council, Including New Pavement on Front and Other Main Streets.

The Milwaukie Council has taken initial steps toward securing Bull Run water for that place. At a special meeting held last week the City Engineer was instructed to run lines for a pipe line that will connect Milwaukie with the Bull Run water system of Portland. Two pipe lines are available, it was reported at the special meeting, and the City Engineer was instructed to ascertain which can be laid for the least expense and how far the \$20,000 bond issue will go toward securing Bull Run water. Application has been made for the bonds, and the indications are now that these bonds can be sold to good advantage.

If the report of the City Engineer is favorable, Milwaukie will ask Portland to sell water from its system. Mayor Elmer is very much in favor of Bull Run water as the best source and is opposed to Minthorne Springs. Mayor Philip Streib favors Bull Run water as the only safe course. However, all depends on the cost of a pipe line. The city has only \$20,000 available for a water supply. There would be 1600 persons to supply provided all built in Milwaukie and several are under construction.

The City Engineer has filed a report providing a new plan for renaming and renumbering all streets and houses of the place. Under this plan Front street would be numbered Nineteenth street and the streets will be numbered from that street back to Forty-fourth street.

The City Engineer makes this recommendation in order to number the houses so that strangers can find them more readily. Present street names and house numbers are confusing to persons from the outside, but the new plan will simplify this and make it possible for anyone to find a house without delay or trouble. The new system will probably be accepted by the Council.

The Council has accepted the plan of the Southern Pacific Railway Company to construct a 60-foot steel span above Main street in the southern part of the town. This will carry the railroad above the street on a permanent steel span.

The shingle mill of the Rose City Shingle & Lumber Company, which was destroyed by fire last year, has been rebuilt and has resumed operation. It has doubled the capacity of the plant. More than 50 men are now employed. The new mill is said to be one of the most complete of the sort in the state.

The Council will hold a special meeting May 1 to consider acceptance of the pavement on Front street, an improvement running through the city and costing \$40,000. This improvement connects with the county road north

MANY BONDS ISSUE

Salem Is Largest Prospective Seller in State.

LIGHT PLANT IN MINIATURE

Hood River Electrician Installs Individual Plant.

HOOD RIVER, Or., April 25.—(Special.)—Utilizing a small stream that cascades down the hillsides in the west portion of the city, E. S. S. Colby, a young electrician, has installed a miniature light plant, the system illuminating his grounds and cottage.

An old merchandise box furnishes the foundation for his water motor and dynamo. His frame is a discarded four-inch wire-wrapped wooden irrigation pipe, which set at an angle of slightly less than 45 degrees diverts the stream to the motor. The system runs smoothly night and day and the inventor may furnish additional light for nearby neighbors.

EXTENSIVE FILLS MADE

PROGRESS IS MADE IN HAWTHORNE PARK IMPROVEMENT.

East Side Street Extension Soon Possible and Early Development of District is Predicted.

With the coming of favorable weather, substantial progress is being made on the district street improvement in progress in Hawthorne Park and between Union avenue and East Twelfth street. The main improvement is being made on East Eleventh from Hawthorne avenue to Belmont, which includes a fill across Asylum Creek; East Madison street from Union avenue to East Twelfth; East Main from Union avenue to East Twelfth; East Tenth from Hawthorne avenue to East Salmon. Fills across Asylum Creek are being made on East Madison and East Main streets, material being taken from the cuts for the new streets. East Main and East Madison streets will be long streets when their improvement between Union avenue and East Twelfth street is finished.

This district improvement is the largest under way on the East Side and the most important. It will eliminate practically the Asylum Creek depression and open up a large territory that has been closed to all development up to the present time. Cement sidewalks are being constructed on all these streets, and it is stated that surface pavements will be put down as soon as the filled portion will permit the work to be done. The fills across the ravine are very soft and cannot be paved at the present time.

The great gain, besides opening up this district to buildings, will be the elimination of the stagnant water in this ravine by the solid fills now being made between Hawthorne avenue and Belmont street. Eventually the entire slough will be filled. The Pacific Bridge Company, which owns the land between Belmont and East Salmon streets, has already partially filled up that part and has in the tracks for the completion of the work in the near future.

All these improvements represent an expenditure, when completed, of about \$200,000.

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W.P. FULLER & CO.'S EAST SIDE BRANCH 124-126 Grand Ave. (Half Block North of Morrison) You'll like the place because it is not an ordinary Paint Store R. F. D. (Rush) (Free) (Delivery) DOORS AND WINDOWS AUTO LUBRICANTS

VACANT HOUSES GO

EASTERNERS TAKE MANY NEW HOMES HERE DURING YEAR.

Advertising of Oregon by Chamber of Commerce Brings Buyers for Suburban Property.

Cherry Orchard Near City Is Model Home

Mr. Waverly, Owner of Tract, Has House With All Conveniences and Money in Bank.

NEAR BY MATS LESS THAN 10 MINUTES WALK TO THE TROLLEY LINE, IS SITUATED a model home. Everything about the place is neat and well kept. There is a good lawn, fence and cement walks leading to the house, both front and rear. The well-kept lawn is dotted with a few choice shrubs, the large shade trees around the house are cherry trees, many in bloom when these beautiful trees are white with blossoms surrounding the modern house, it all forms a most charming picture.

Mr. Waverly, the owner, never attended the Oregon Agricultural College, yet he is a scientific farmer.

All drudgery has been eliminated from the house as well as the farm. The house is equipped with a complete water system, electric lights, etc.

A small gasoline engine installed in a room built expressly for it is back of the house. This pumps the water and generates the electric current for lights in the house and barn.

Mr. and Mrs. Waverly have worked hard but now their children are grown and they can take life easy and have time for recreation.

He is still interested in improving conditions in the community where he lives. He and his wife are also prominent in Grange work.

The 19 acres are highly developed. More than 300 cherry trees were planted. They are the Royal Anna, Bing and Lambert. They are the best sellers and are popular in canning cherries, bringing good prices.

Mr. Waverly never has grown berries for sale. They grow well and all kinds are cultivated for home use. He raises a few grapes every year. Only poultry enough is kept for supplying the table with fresh eggs and "fried or baked chicken" as often as they want them and Mr. Waverly favors the Barred Plymouth Rocks and keeps no other kind.

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