PHASES OF INDUSTRIAL GROWTH IN THE STATE OF OREGON

ELECTRIC LINES THROUGH PALOUSE

New Trolley System Opens Up Rich Land of Big Wheat Fields.

SPOKANE INLAND EXTENDS

Trains Run to Rosalia and Will Soon Reach Garfield—Increased Activity Will Come When Spring Opens.

GARFIELD, Wash., Jan. 27.—(Special.)—By April the first electric trains will be running into this city from Spokane. The gaps between steel laid from the Palouse country end and the Spokane end are being rapidly closed up. Steel from Palouse City is now laid within a mile of Garfield, and will be completed this week, if good weather continues.

From the Spokane end the line has been completed to Rosalia, and the first train ran into that city from Spokane last week. The big cut at Palouse City has been completed, and a big force of men is now grading for a $20,000 depot, which, when erected, will be one of the best on the Inland electric line. Work will begin on the depot as soon as Spring opens up. Work of grading from Palouse to Moscow, Idaho, has already commenced. A big camp has been established on the Fawcett place, and the equipment, consisting of a steam shovel and small rails for dirt cars, has arrived. Work will first begin on the big earth cut, which parallels the Northern Pacific on the Fawcett farm.

As soon as Spring opens up, work on the various extensions of the Inland road will be pushed forward. A contract for 2000 tons of 60 and 70-pound steel rails are to be delivered during the months of April, May and June, and will be used on the Moscow extension and the Liberty Lake line. With the completion of the Spokane & Inland to Moscow and the extension to Liberty Lake, the system will have a total of 200 miles of road.

The basis of commutation tickets on the electric system is 1½ cents a mile.

PLAN CO-OPERATIVE CANNERY

Linn County Fruitgrowers Hope to Save Surplus Fruit.

ALBANY, Or., Jan. 27.—(Special.)—To establish a co-operative cannery to handle their surplus fruit is the plan of Linn County fruitgrowers. At a meeting of the Linn County Horticultural Society in this city, a committee, consisting of E. H. Rhodes, A. C. Schmitt and Harry Cusick, was appointed to launch a project for such an industry in Albany.

That a cannery is needed to dispose of a great amount of good fruit which is now entirely wasted was the unanimous opinion of the horticulturists, and the movement now begun will doubtless result in the establishment of the cannery. It is estimated that it would mean an annual saving of thousands of dollars to fruitgrowers in this county. Plans for the cannery are as yet somewhat embryonic, but it is proposed to make the industry a co-operative one, and a stock company will probably be formed to own and operate it.

To ascertain the fruits and vegetables best adapted for the Willamette Valley, a committee consisting of County Fruit Inspector Roberts, C. H. Walker and E. W. Cooper was appointed. This committee will investigate conditions and report at a later meeting of the society. It was the opinion of the meeting that too little care has been exercised in the Valley as to what products can be grown here successfully and profitably, and it is planned to make a careful investigation, with a view of more systematic effort in the future.

A report of the meeting of the State Horticultural Convention in Portland was made to the society by County Fruit Inspector Roberts. He explained the victory of the Hood River growers at the exhibit there, and said it was the method of culture and care on the part of the growers rather than the climatic conditions of the country that enabled the Hood River men to make the showing that they did. He advised Valley growers to adopt the same methods of raising and packing their fruit if they wished to attain the same success. Addresses were also made at the meeting by H. J. Moore, of Benton County, and D. P. Mason, of Albany.

The Linn County Horticultural Society will meet in this city again soon to consider further the question of establishing a cannery here.

NEW SCHOOL IS DEDICATED

Modern Building Opened to Pupils at Medford.

MEDFORD, Or., Jan. 27.—(Special.)—One of the most modern school buildings in Southern Oregon was dedicated in Medford last week, when the new North School was occupied by 200 pupils, in charge of eight teachers. The building is up-to-date in every respect, with steam heat, play rooms in the basement and commodious halls and lavatories on each floor. The library room is another attractive feature.

Even with these added accommodations, Medford is not able to house its rapidly increasing school population. This growth is due to the efficiency to which the schools have attained under the supervision of Superintendent Signs and to the rapid development of Medford as the center of the famous Rogue River Valley. There are now 20 teachers employed in the Medford schools. Miss Minnie Gowland has been promoted to the principalship of the new school, and Miss Iva Shirley, of Hamburg, Ia., takes the grade formerly in charge of Miss Gowland. Miss Mary Talbert has been transferred to the North School, and Miss Jennie Snedicor, of Sprague, Wash., takes her place.

Medford now has two complete public schools and a high school department, offering full four-year courses in all branches. Plans are taking definite shape for a four-year business course, including stenography and typewriting, and for a scientific study of the agricultural conditions of the Rogue River Valley. These progressive steps are a source of great gratification to the School Board and to the citizens of Medford.

WILL TEST TIMBER

Experimental Plant at Eugene Proves Its Value.

GOVERNMENT PROVIDES IT

Equipment Consists of Apparatus to Determine Relative Strength of Various Woods—Legislators Look Over Station.

UNIVERSITY OF OREGON, Eugene, Jan. 27.—(Special.)—During the visit of the legislators to the University on Friday the testing station for the determination of the strength of timber and cement received special attention.

This station is one of the five testing plants of the United States Forest Service, the other four being located at Perdue University, Yale; the University of California and the University of Washington.

In each place the universities provide the buildings and machinery for carrying on the tests, and the Forest Service furnishes only the special instruments of the laboratory for the timber work and the salary of the engineer in charge and the wages of needed help.

The importance and usefulness of such a station to the engineering student is not generally recognized, but the practical experience in the strength of materials is essential to the best efficiency of the engineer.

In the designing and construction of machinery, the engineer must know the breaking, torsion and tensile strength of his material in order to decide whether steel or iron may be most advantageously and economically employed and in the construction of bridges or buildings the safety of the structure depends upon the strength of its girders or timbers and the practical knowledge of these determinants is of prime importance.

The equipment of the Eugene station consists of a testing machine of 200,000 pounds capacity, a smaller machine of 30,000 pounds, a convertable saw and a planer, all operated by an electric motor. For the Government work it is sufficient for the needs, but the classes require that there should be several of the 30,000-pound machines for regular laboratory work.

The importance of the engineering equipment to the University of Oregon student is readily determined from the fact that nearly half the students are either taking engineering as a major subject or are including the work in another course.

The timber station has proved of especial importance to the lumbering interests of the Northwest. A series of tests just completed have been sent to Washington and will be published in pamphlet form. The results of the tests will show that the Oregon Red Fir is equal in strength to the famous yellow pine of the Southern states.

Farmers' Institutes Arranged.

OREGON CITY, Or., Jan. 27.—(Special.)—County Fruit Inspector Lewis, who has just returned from Corvallis, where he has been taking special instruction in horticultural work, has arranged for the following dates for institutes to be held in Clackamas County: Estacada, February 11; Damascus, February 12; Logan, February 13; Molalla, February 14; Canby, February 15; Oregon City, February 16. Afternoon and evening sessions will be held at each place, and the speakers will be: Dr. James Withycombe, of the Oregon Agricultural College; Mr. Judd, who will talk on "Draft Horses"; William Sulmerlich, whose subject will be "Dairying"; Fruit Commissioner Reid, of the First District, and County Fruit Inspector Lewis, of this county. The lectures will be illustrated by stereopticon views.

NOT COLD AT PRAIRIE CITY

Although Country Has High Altitude, No Extremes Occurred.

PRAIRIE CITY, Or., Jan. 27.—(Special.)—While the temperature during the past week has been extremely low in the Pacific Northwest, it may seem strange that this section of the country, with an altitude of 3300 feet, has experienced no extreme cold or stormy weather during that time. On Thursday, January 17, the thermometer registered as low as four degrees below zero, which is the coldest for this season, and that was only for one night.

Before the recent cold wave came, it was rainy here nearly continuously for about two weeks, which is very unusual, and the roads were almost impassable.

During this last cold snap, no snow fell in this valley worth mentioning, but it has been foggy and the air thick with frost, which heretofore has been unknown in this section. The frost left a blanket of two or three inches on the ground, sufficient to protect vegetation. As a consequence all stock is doing well, and the stockmen are enjoying this cold spell, as it is easier and better to feed the range stock on the frozen and snowy ground. There is plenty of feed for all stock in this valley until the middle of March, and some of the stockmen claim that they have enough feed for their stock, feeding continuously, until April 1.

The thermometer registered zero on Sunday, January 13, the following Monday, 2 degrees below zero; Wednesday, 10 degrees above zero; Thursday, 4 degrees below zero; Friday, 22 degrees above zero, and Saturday and Sunday, about 26 degrees above zero.

Hermiston Is on the Map.

HERMISTON, Or., Jan. 27.—(Special.)—The O. R. & N. station has been established at this point with C. J. Jackson, formerly of Pendleton, in charge as agent. While the present quarters of the agent are in a boxcar, set off from the east side of the main track, he is supplied with full equipment to transact the passenger and freight business at this point. The contract for the depot has been let and will be completed within 30 days.

The embargo put on building operations and the work of the reclamation service by the cold weather has been raised and 24 teams belonging to the Government are engaged in hauling supplies, building materials and rails for the narrow-guage construction road to the Cold Spring dam and reservoir site, and over 30 carpenters are at work on new buildings in town. During the cold spell the thermometer reached zero only twice, one morning reaching five and the other eight below.

TEST CEMENT ROCK

Automatic Apparatus Installed at Corvallis College.

ALL EXPERIMENTS FREE

No Charge Made for Examination of Samples of Limestone, Clay, Etc. Will Assist Establishment of the Industry.

CORVALLIS, Or., Jan. 27.—(Special.)—A new automatic cement testing machine has been added to the geological department at the Oregon Agricultural College. During the past year so many inquiries have been made concerning limestone deposits and their adaptability for cement making that it was deemed necessary to add the new machine to the equipment. The department is prepared to test any sample of cement for strength, or any limestone for use in making cement and to give necessary directions for proper mixing of the ingredients.

Samples of limestone sent for testing should weigh not less than 20 pounds, and should represent an average sample of the deposit. The sample of cement to be tested should weigh not less than ten pounds and should be taken from the center of the barrel or box. The sender should prepay the expressage. All samples should be addressed to the department of geology.

Professor John Fulton, of the department, urges that Oregon should manufacture her own cement. The eastern and southern part of the state is full of available limestone deposits, many of them prime material for the manufacture of cement. In Coos County, in particular, where transportation is peculiarly favorable, there are excellent deposits. There are also in Jackson, Josephine and Douglas limestones of the first order which Professor Fulton has studied to some extent with a view to its ultimate use for the manufacture of cement and lime.

The usual materials are a good quality of pure clay, of a variety that would make fair pottery, or at least earthenware. When darker than this it contains too much iron, which, in the process of burning, is apt to form a slag. The percentage of limestone runs from 56 to 66.

There are several varieties of limestone that are used, among them being volcanic tufas, argillaceous limestone, marls and limestone proper, of which there are enormous deposits in various parts of the state. The volcanic tufas are found in great quantities in the Cascades. It is an indurated volcanic rock, which carries a large per cent of lime and silica combined. The tufas form the cheaper grades of cement.

Houses in Demand at Kelso.

KELSO, Wash., Jan. 27.—(Special.)—Despite the fact that there has been constructed in this city within the past two years more than 65 dwelling-houses and 17 stores and warehouses, not including the 20 or more cottages erected across the river, there is not a vacant storeroom or residence to be rented at any price, and there are a dozen families living in makeshift places over offices and stores, all longing for the comforts of a home. Not even rooms for light housekeeping can be had, and, though several new houses are in course of construction, all are engaged in advance.