

Lewis ^{AND} Clark Journal



JANUARY 1905

1805, PORTLAND, OREGON. 1905



**THE LEWIS & CLARK CENTENNIAL
PORTLAND - OREGON - 1905**

OFFICIAL PUBLICATION OF THE LEWIS AND CLARK FAIR.

Wake Up!

If you have made a failure elsewhere

If you have done your best— very best—

If you are trying to do the impossible

Irrigation is King

Many who have made failures in other states have made fortunes in irrigated districts. It is the man who has **tried hard and failed** and who has not lost his nerve that we want to see. Biggest yields and best markets on earth. Write for full information

NEELY & YOUNG

Spokane, Washington

Manager Sales Department
Spokane Valley Land & Water Co.

Tatum & Bowen

Heavy Machinery MILL AND FACTORY SUPPLIES

SAN FRANCISCO: 34 to 36 Fremont Street

SEATTLE: 110 to 112 Jackson Street

PORTLAND: 29 to 35 First Street

References: Fidelity National Bank, Old National Bank, Spokane
Franklin Trust Co., New York

Elmendorf & Elmendorf

SPOKANE, WASHINGTON

ESTABLISHED 1892

Farm Lands, City Property, Investments

We handle property in
Washington, Oregon and Idaho

Write us for information

Oregon Lime & Plaster Co.

Chas. E. Ladd, President.

Chas. F. Beebe, Sec'y and Mgr.

**LIME
PLASTER PARIS
IMPERIAL CEMENT
WALL PLASTER
WOOD FIBER
PLASTER
LAND PLASTER**

All the Highest Grade Products. Write for prices

Quarries, Kilns and Mill—Lime, Baker County, Oregon

Head Office—3½ North First Street, Portland, Or.

Telephone Main 718

ADAMANT

"The Perfection of Wall Plaster"

Office 3½ North First Street.

Mill Foot 14th Street

Portland, Ore.

THE OVERLAND LIMITED
TO OMAHA AND CHICAGO

THE PIONEER LIMITED

MINNEAPOLIS & ST. PAUL TO CHICAGO



THE SOUTHWEST LIMITED

KANSAS CITY TO CHICAGO

H. S. ROWE, General Agent
134 Third St., Portland, Oregon

LEWIS AND CLARK JOURNAL

Volume Three

PORTLAND, OREGON, JANUARY 1905

Number One

Rapid Progress of the Exposition

Eight of the Buildings on the Mainland Receive Finishing Touches
A New Manufacturers' Building Projected

EIGHT Exposition buildings are now completed and formally turned over to the Exposition, and work on the other structures is rapidly approaching the finishing stage. The completion of the Fair in every detail before opening day, June 1, is now assured beyond a doubt. Centennial year in Oregon opens with all conditions pointing to success. Already a goodly volume of pre-exposition travel has set in, many people being attracted to the coast through the extensive advertising which the enterprise is receiving. The general verdict is that at this date, six months before the formal opening, the Lewis and Clark Fair is better known among the prospective visitors than was the World's Fair at St. Louis within a month of the opening date.

Two of the principal main buildings on the mainland, the Foreign Exhibits and the Oriental Palaces, have been finished. The finishing touches on six other structures were put on a few days before Christmas. There are the Agricultural Palace, Fire Department Building, Public Comfort Building, Administration Building, Public Shelter Pavilion, Colonnade Entrance. The electric wiring on these structures has been completed. These buildings elicit a great deal of admiration for their graceful outlines, being in the Spanish renaissance style of architecture, constructed of wood and covered with ivory-white staff.

THE PLAZA OF STATES

In the Plaza of States, in the eastern side of the grounds, rapid progress has been made on the Machinery, Electricity and Transportation Building (600 feet in length), the Mines and Metallurgy Building, and the Auditorium and Festival Hall. Nearly half of the Machinery Hall is under roof, it being the policy of the contractor to have the finishing touches follow closely upon the other work. The Mining Building is under roof. More applications for space for mineral displays of the highest character in

this structure have come in than can be provided for. It is contemplated making the Mining Building a feature of stronger interest by putting in a tunnel under the building for the purpose of illustrating the process methods and machinery of modern mining operations.

ANOTHER BUILDING PROJECTED

The new Liberal Arts and Varied Industries Building has been projected to provide about 90,000 square feet of floor space. Director of Exhibits Dosch, as stated in last month's Journal, has received more applications than the new building can take care of. It will be necessary to do some trimming all along the line to accommodate a larger number of applicants. The offer of free space for comprehensive working displays at the Centennial, was a strong inducement for the keenest rivalry and unusual exertion among manufacturers in every part of the country to install original exhibits.

ON GOVERNMENT ISLAND

On Government Island three hundred men are putting together the foundation timbers of the group of structures which will house the exhibits of the government. As these exhibits will be ready for shipment and on the way to Portland on March 1, the limited time ahead is forcing details to take shape quickly. Some slight delay has been experienced in getting material and the Bridge of Nations has not been finished up on this account. When the material for the second flooring is delivered the bridge will be ready within a few days. As the piles and bents were put in the electrical crew and the plumbers crews installed underneath the decking the electrical light and power feed wires for the island and the water and sewer pipes.

The return of President Goode at Christmas time brought great and renewed activity in many lines at Exposition headquarters. The president made two trips to Washington arranging with the department officials for

select exhibits which are coming to Portland and for the Philippine display. The success of the president's efforts in behalf of the Centennial is cause for general congratulation. Mr. Goode feels assured that the Fair is well advertised and that a great throng of travelers will "hit the trail" for Portland. The president spent some time with Director of Concessions Wakefield at St. Louis in connection with closing up details in connection with the appearance here of a number of notable attractions. Through the efforts of the president and Director of Works Huber five carloads of the most famous statuary in the country have been secured.

ROOSEVELT MAY COME

When he called at the White House, President Goode invited President Roosevelt to attend the Lewis and Clark Exposition. The President said he could not make an engagement so far ahead, but it is apparent he will strain a point to get to Portland next year if public business will permit him to make so long a trip. He expressed delight when told of the progress that had been made with the Exposition. He was greatly pleased to hear that the Exposition will be ready on time, and that everything points

excursions to come to the Exposition. The publicity agencies of various big railroad systems of the country are co-operating with the Department of Exploitation in advertising the Fair. From now until the opening date the advertising will be carried on most energetically.

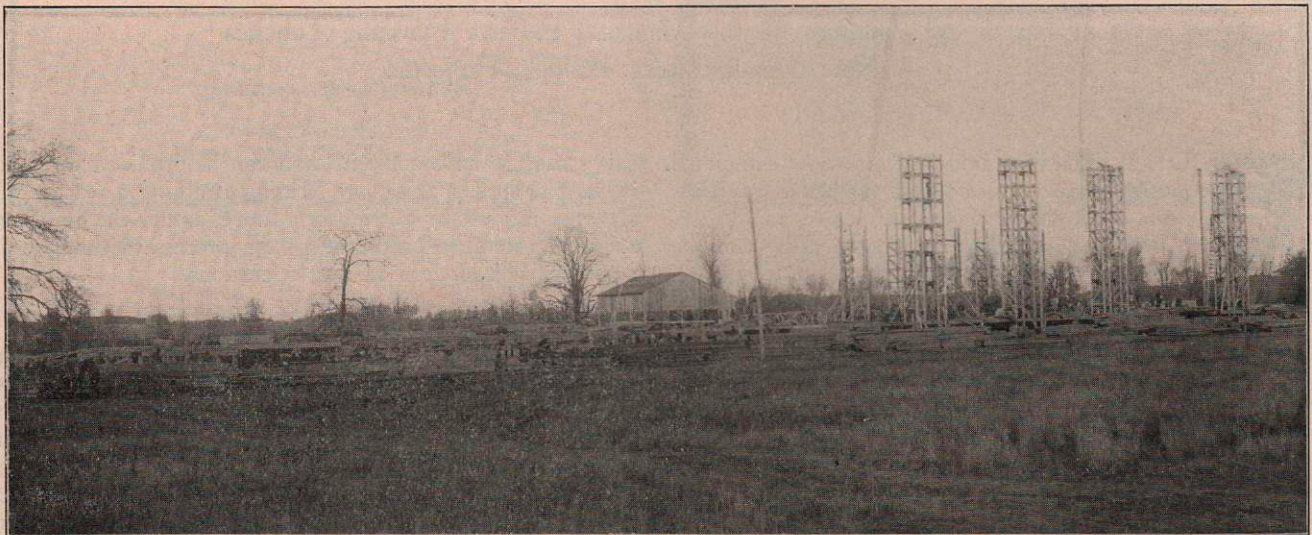
Manager Merrick's assistant in the press bureau work is Will L. Brindley.

Since September, when a larger amount of Exposition work began in earnest the Associated Press agency in Portland has handled on an average about 10,000 words per month on pre-exposition doings. Special attention has been given to the Exposition by Mr. S. B. Vincent, the resident representative, and to his work of directing all eyes on Portland, much is due.



CONDUCTORS COME IN MAY

The Order of Railway Conductors, for whose twenty-ninth biennial session, on May 9, arrangements were made recently by a committee upon the occasion of the visit to the Centennial, will bring about 4000 visitors to Portland before the Exposition gates are officially open. There will be 500 qualified delegates to the grand di-



FOUNDATIONS OF UNITED STATES GROUP OF BUILDINGS

[Lewis and Clark Photographic Co.]

to its being a great success. From the start the President has been deeply interested in Portland's enterprise, and is surprisingly well informed on the progress of the work at Portland.



PRESS BUREAU IS ENERGETIC

The General Press Bureau of the Exposition which was fully organized for the campaign of advertising on November 1, is putting out several hundred thousand letters and descriptive articles on the Centennial every week. The returns are coming in in the form of hundreds of newspaper clippings which show the wide interest taken in the Coast Fair.

Frank L. Merrick, general manager of the Bureau, is a trained exposition writer and has already caused to be printed throughout a syndicate of the first newspapers of the country, full page writeups of the Exposition, detailing in an attractive manner the unique features of the Fair. The advertising campaign of publicity extends to every portion of the United States, and even Eastern Canada represents a share of interest and is organizing

vision, Grand Chief Conductor E. E. Clark says. Special trains will run from El Paso, Atlantic City, Macon, Pittsburg, Cleveland and Chicago. The local committee of arrangements is composed of A. Veatch, J. W. Crocker, E. E. Chemwell.

The Order of Railway Conductors was organized in 1868, and in 1878 was reorganized. In 1890 it had 13,000 members, and today it numbers 34,000. Its membership includes 85 per cent of all the conductors in the country. It has paid in benefits a total of \$6,000,000, without the loss of a penny through mismanagement or malfeasance on the part of its officers. Its benefits last year alone amounted to \$805,000.



READY FOR AIRSHIP CONTEST

A Seattle man has invented an airship and wishes to bring it to the Exposition. J. E. Paul, the inventor, describes his invention as a 50-horsepower machine, and states in a communication to Exposition headquarters that it will be able to make a more successful flight than any made during the St. Louis airship tournament.

Chimes to be Rung from White House

By JAMES R. THOMPSON, Electrical Engineer

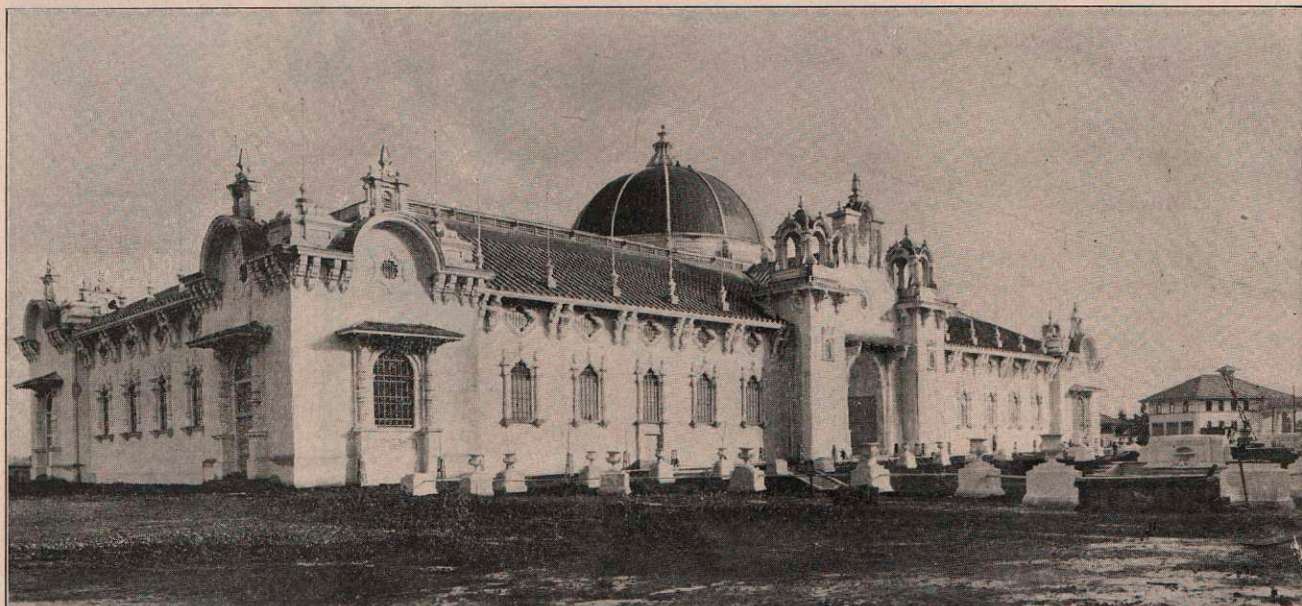
Magnificent Scheme of Electrical Illumination for the Centennial Dazzlingly Beautiful Effects on Guild's Lake

ELECTRICAL experts are at work on an extremely novel feature for the opening exercises of the Exposition, June 1, 1905. By an arrangement of wires connecting the White House with Government Island in Guild's Lake, it will be arranged for President Roosevelt to touch a key and set in motion chimes in one of the towers of the Government Building at the Exposition. The chimes will play "America."

The idea was suggested some time ago by D. C. Free-

the mainland, the view of the grounds, when lighted up in the evening, will be equally attractive.

A feature of the electrical illumination will be the electroliers. These fixtures, each made up of a graceful cluster of seventeen fifty-candle-power frosted lamps, will be placed around the sunken gardens of Columbia Court, alternating with urns filled with gorgeous flowering plants. Other electroliers will occupy pedestals on the grand stairway, while numerous smaller fixtures, each made up of six lights, will be scattered along the shady walks and



AGRICULTURAL PALACE FROM NORTH END OF COLUMBIA COURT, WITH PEDESTALS AND STATUARY OF SUNKEN GARDENS AND PUBLIC COMFORT BUILDING IN DISTANCE [Lewis and Clark Photographic Co.]

man and immediately received the indorsement of the Exposition management. A manufacturing firm at Cincinnati has been engaged to make the chimes. After the opening the chimes will play twice daily.

Wonderfully beautiful electrical effects, some of them not possible in a larger Exposition, and all of them of more than passing interest, will add attractiveness to the Centennial. A grand total of over 70,000 electric lights will be used. A four thousand horse-power turbine will be required to supply the current.

KEYNOTE OF THE GROUNDS

In Columbia Court, about which cluster the larger exhibition palaces, and on the Government group across Guild's Lake, will be centered the efforts of the Exposition electrical staff. The central axis of the Fair, running northwest and southeast, through the center of Columbia Court, will cut the center of the main part of the Government Building on the island. Thus, it will be seen that whether the spectator is on the peninsula, or on

through the woods in the western part of the grounds, and, also, around groups of statuary.

The general plan of illumination includes outlining every building by means of eight-candle-power frosted lamps. Frosted lamps will be used everywhere. The advantage of these lights over the incandescent globe is that they produce a glowing effect, which, though brilliant, will not dazzle the eyes. About Columbia Court this effect will be particularly entrancing, four thousand lights being used along the court side of the big Agricultural Palace and three thousand or more on that side of the European Exhibits Building. The great dome of the Agricultural Building will likewise be lighted by the frosted globes, twelve hundred of them being used. The Colonnade entrance which is designed to fascinate the pleasure-seeker as he enters the grounds, will be illuminated with a gorgeous display of fifteen hundred lights.

The Government Building, the general front of which will be in the form of a wide crescent, will present an entrancing sight when lighted at night with thousands of

tiny globes. Two towers, located at the ends of the main structure, each 260 feet high, will be, literally, dazzling pillars of light. Rows of frosted lights will outline the beautiful peristyle connecting the main part of the building with its two wings, and the wings themselves, which will be used for the housing of the irrigation and territorial exhibits, will be a blaze of electric beauty.

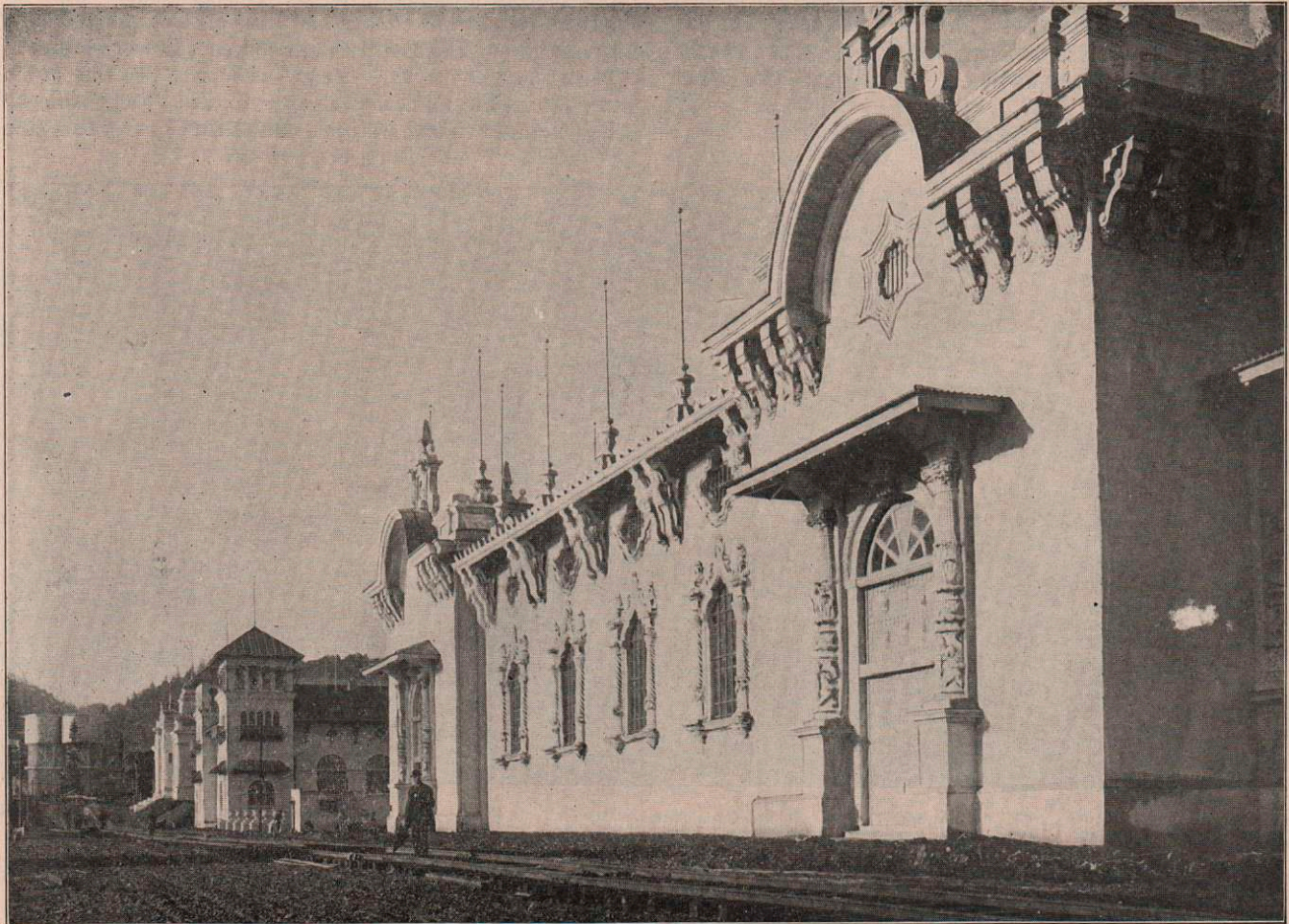
DISPLAYS ON THE WATER

The circumstance of there being within the Exposition grounds a larger body of water than at other Expositions, has not been overlooked. Some elaborate electrical water displays are being considered. It has been definitely decided that some sort of a fountain display, managed from

PRIZES WON BY OREGON

W. H. Wehrung, superintendent of Oregon's exhibit at the St. Louis Fair, brought with him a complete list of the premiums won by this state and the showing reaches the remarkable total of three grand prizes, 67 gold medals, 150 silver medals and 71 bronze medals, exclusive of cattle and sheep awards, which will run high.

These prizes belong to the several departments, as follows: Educational—Group No. 1, one gold, one silver, one bronze; group No. 2, two silver, one bronze. Horticulture—Two grand prizes, seven gold, 84 silver, 34 bronze. Agriculture—One grand prize, 43 gold, 56 silver, 22 bronze. Fish and Game—Nine gold, four silver,



LOOKING WEST ON LEWIS AND CLARK BOULEVARD.

Lewis and Clark Photographic Co.

a sunken barge, will be provided, and the arches of the beautiful Bridge of Nations will be outlined after the method used on the buildings. About one hundred and fifty electroliers, each of six lights, will illuminate the Bridge of Nations, and the part of the bridge known as the Trail, where the various amusements are to be held, will be lighted by the people who own the concessions.

The wires by which the electric current is supplied, are all laid underground, and the transformers are in vaults near the buildings. The inside wires are all covered with white insulation, so that they are nearly invisible. On the outside of the buildings, too, the wires are white.

The use of white insulated wires for interior work is a new and original feature and is in accord with the ardent desire to make everything connected with this part of the Fair attractive.

one bronze. Mines—Two gold, one silver, 10 bronze. Forestry—Five gold, two silver, two bronze.

In horticulture, Oregon beat all comers as to quality, and would have received 84 gold medals, instead of seven, had the exhibit been up in quantity.



CANADA RECONSIDERS

The Dominion of Canada has reconsidered its plan not to participate at the Coast Centennial. Owing to the fact that the Western provinces of the Dominion are making a strong bid for settlers, the matter will receive further attention. A Canadian building in which to make a display of agricultural products and to demonstrate the inducements to settlers will be erected.

Washington Will Have \$25,000 Building

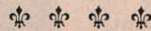
Meeting of State Commission Develops Great Enthusiasm in "Evergreen" State
Liberal Appropriation Will be Made at Next Session of Legislature

THE Washington State Commission to the Centennial, which met in Portland last month, decided that a building costing not less than \$25,000 and perhaps more, would be imperatively needed in order to provide for the displays which Washington would enter here. The commission at its first meeting in January at Olympia will report to the governor and recommend an appropriation of not less than \$75,000 for the "Evergreen State." The crowded condition of the exhibit palaces caused the members to quickly come to the conclusion that the plans would be laid for carrying out the participation of Oregon's neighbor on the other side of the Columbia on a scale commensurate with the wealth of that grand state.

The commission, through its chairman, G. W. R. Peaslee, gave out the interesting information that the commission saved a neat balance from the St. Louis display to make a good start for the Centennial. The condition of Washington's participation part in the 1905 Fair is that owing to a political complication the governor of Washington vetoed only the section carrying an appropriation of \$50,000 for Portland two years ago. The senate committee refused to accept a compromise of \$25,000, which the then governor agreed to approve, but the compromise was not accepted. The appropriation failed while to all intents and purposes the original commission was authorized to continue operations for the 1905 Fair.

A triangular piece of ground with a frontage on Lewis and Clark boulevard, and located near the Agricultural Building, was selected as a building site. It contains nearly four thousand square feet of space and is quite conspicuous from other parts of the grounds. Resolutions were adopted calling for estimates for a building from architects of that state who will compete for the honor and the reward for the successful design that shall most aptly and fittingly be erected upon the ground in view.

The commission reported that sentiment was strongly in favor of the Portland Exposition. Washington's appropriation for the St. Louis Exposition was \$75,000, and it is said that its building attracted a vast amount of attention. The exhibit was directed by Executive Commissioner Elmer E. Johnston, to whom was tendered the similar position at Portland. He has the offer under consideration. It was declared by Commissioner Megler, who is a member of the legislature, that not a cent less than \$75,000, the same as at St. Louis, should be devoted to a display. It was thought to be only a matter of a short time when the legislature would appropriate the necessary sum and the bill would be immediately signed by the governor. The commission is composed of G. W. R. Peaslee, of Clarkston, president; Frank J. Parker, of Walla Walla; J. G. Megler, of Brookfield, and G. L. Lindsey, of Ridgefield, secretary.



UTAH'S EXHIBITS ARE READY

An official letter from Utah has been received at Exposition headquarters, announcing the glad news that although \$10,000 has already been asked for from the Legislature for the purpose of erecting a building and making a display here, another request will be sent in asking for \$30,000 additional.

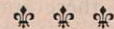
Utahans feel confident of getting this generous appropriation. In addition the news is conveyed to Exposition officials that five cars of exhibits from St. Louis belonging to the State of Utah are all ready for transportation to Portland and only await the action of the State Legislature in regard to the appropriation for a state building.

It is stated that feeling in favor of this Exposition is strong, as Utah will probably reap large benefits from a good display here of their resources. The intention is to make an even better display than at St. Louis, as Utah is a typical Western State. It is believed that the influence of Idaho in making preparations for participation on a large scale at the Fair induced Utah to take the matter up.

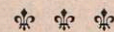
Every inducement will be extended by the Fair corporation to the states west of the Rocky Mountains to erect their State pavilions and buildings for displaying their resources.

ILLINOIS COMING TO OREGON

Norman B. Taylor, Secretary of the Business Men's League, of Moline, Ill., has written Exposition headquarters for literature concerning Oregon. Mr. Taylor is soon to address a meeting of a manufacturers' association on the advantages offered to capital in Oregon, and gives the pleasing information that at least one factory is coming to Portland, backed by Illinois capital.



From Latah County, Idaho, comes a request for 500 square feet of exhibit space. It is announced that the business men of the County have gathered funds for a representative exhibit.



American Boy day at the Lewis and Clark Exposition will be arranged for some date in the neighborhood of July 4. On the day selected there will be appropriate ceremonies and a special celebration in honor of the American boy.

Friday, September 8, has been officially designated as national letter carriers' day at the Centennial. The association will hold one week's convention.

Five Filipino Villages to be on Grounds

Three Hundred Natives, Consisting of Filipinos, Tinguanes, Bogaboes, Igorottes and Moros Will Arrive in Portland May 1st

SEVERAL villages of tribes of the Filipinos will be seen on the Centennial grounds. Dr. T. K. Hunt who was in Portland December 10, picked on a plot of ground on the peninsula in Guild's Lake as the most likely place for the erection of the dwelling places of the primitives who will certainly do no less than create a sensation. Three hundred of them will arrive in Portland, May 1, 1905. Edmund A. Felder, a partner of Dr. Hunt's, arrived here on the 20th for the purpose of closing up the contract with President Goode and Director of Concessions Wakefield. Dr. Hunt was director of the Filipino exhibit at the last World's Fair and made an unqualified success of the venture.

As traveling companions to Portland, en route to take steamer at Seattle, for Manila, the doctor had Chief Antonio and Chief Chomigma, the greatest headsmen of their tribes. They approved of the idea of coming again to this wonderful land and will report favorably to their countrymen on the matter. Chomigma and Antonio, it was discovered, have fallen easily into American manners. While their conventional sack suits were worn in an apparently uncomfortable manner, still, they preserved the dignity of the party and were only too willing to slip off their clothes to pose for photographs in "the altogether"—a breach-clout and an amiable smile being the only adornments, if their decorations of beads and the tattooed decorations in their skins are excepted. The two chiefs are accomplished headsmen. In their own country when they kill an enemy they chop off his head and bear it in triumph. Chomigma and Antonio have many such triumphs to the credit of their skill in manipulating the bolo. Chomigma, by the way, presented President Roosevelt with his bolo upon the occasion of a recent visit to Washington, when he took his leave of the Big Chief of America.

DR. HUNT IS LIKED BY THEM

Dr. Hunt is "medicine man" in the Philippines. Five years ago he went over there among the natives and ingratiated himself into their confidence, being accepted not unwillingly, in the role of guide, philosopher and friend. He speaks the language fluently. Although Antonio, in a fit of anger one day, when he could not digest his lump of dog meat, threw a spear at him, the doctor is his best friend. The doctor had a bad minute of it. He didn't give Antonio time to throw another spear. It was well he did not. Antonio and his philosopher and friend both went to the hospital for awhile, Antonio the sorriest of the two, because the Filipino chief was worse battered than the doctor. And they have lived amicably together ever since.

Dr. Hunt expects to have five villages of the Filipinos on Guild's Lake next summer. He has obtained the consent of the government to bring over the colony. His experience the past summer at St. Louis was that his young

natives too quickly caught a liking for American ways and habits and, principally, from the desire for making money, they were loath to go home. The five villages which will be contracted for will be Filipinos, Tinguanes, Bogaboes, Igorrotes and Moros, the latter two being the lowest in the scale of civilization.

LIVE IN TREE HOUSES

The Moros frequently live in tree houses. They are the lowest order of their tribe. Originally the houses were built in trees to escape from wild animals of the



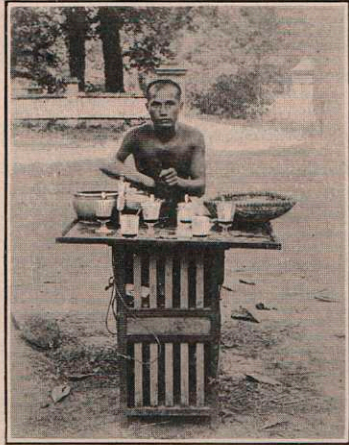
TREE HOUSE OF THE MOROS.

tropical jungle and attacking war parties of hostile tribes who could be more easily resisted from this lofty eminence. Along the shores of Guild's Lake the different styles of native architecture of houses will be shown, and visitors will see the Filipinos living as they would live if at home and observing their tribal customs and habits.

The Igorrote and the Moros are of Malayan extraction, but the Negritos are the aborigines of the island provinces. These are a puzzle for students of anthropology. These people are true savages. They wander through the dense mountain forests in search of daily subsistence. The primitiveness of their culture, or, lack of it, is manifested in the simplicity of the things they make and use.

The chief ambition of the average Bontoc Igorrote is to receive from the chief of his tribe a kind of bamboo crown, decorated with the crimson beak of a big bird. The Igorrote qualifies for this adornment when he has taken twenty human heads. Their pocket—ordinarily, when not

possessing "store" clothes—is a dinky little hat of straw, tied to the bushy, coarse shocks of their shining black hair. Some of the Igorrotes have heads like the Japanese and some look like Indians.



SERVING COLD DRINKS IN FILIPINO VILLAGE.

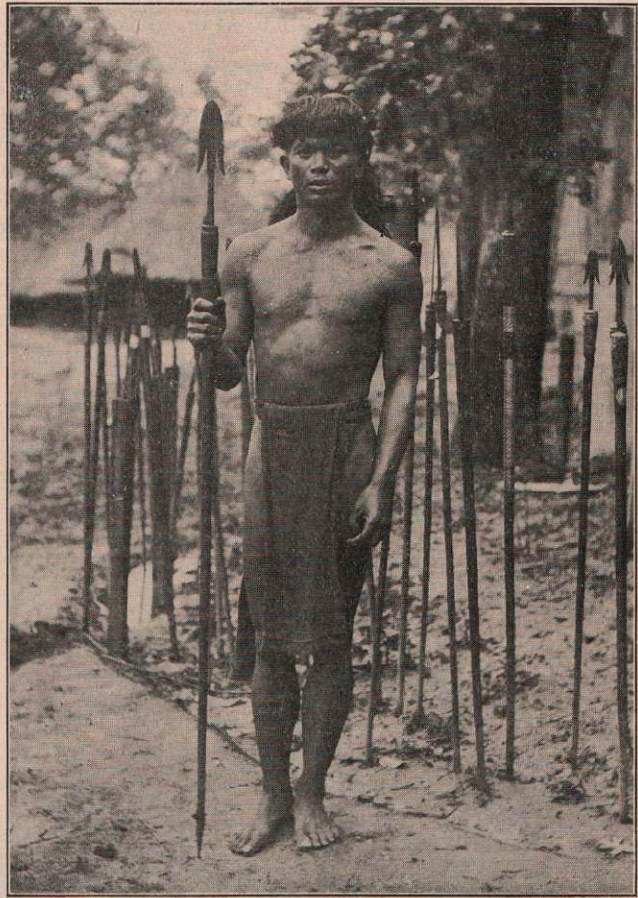
The Bontoc comes from the most northern district of Luzon. He is an arch head-hunter, and this head-hunting is not only a means of self-defense, but in a measure has become a pastime, for after a member of the pueblo or township has brought home a human head, a month is given to happy celebration and is the occasion for all work to stop.

HOW DOG IS SERVED

The Igorrote men eat dog, killing it in accordance with certain ceremonial regulations, after which it is singed, then cut up and boiled; but as the dog flesh is supposed to nerve them up for fighting, no women are to partake of this canine relish. Tattooing is common among the



PREPARING FOR A FEAST—BLEEDING THE DOG.



CHIEF ANTONIO, HEADSMAN OF THE BONTOC TRIBE.

Igorrote. A man's war record is tattooed upon his breast. Antonio, the lithe chief of the Bontocs, who is a very knowing and amiable savage, has five heads credited to him on his breast in marks of blue. At the tribunal of the tribe they prostrate themselves to the sun every morning. In the midst of the village there will be a jail-structure in which will be incarcerated any offending member of the tribe. Discipline is enforced among the wild peoples. If a member violates a sentence for bad conduct, which is imposed by his countrymen, Chief Antonio sees that he gets a good whipping. On the island the punishment for breaking jail is severe—the prisoner is not infrequently beheaded.

THE VISAYANS

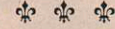
The Visayans are decidedly artistic. Their picturesque homes will be composed of bamboo. These people will be shown in a vaudeville theater of their own on "The Trail." They possess a natural aptitude for music. The women are expert weavers, and it is a wonderful sight to behold them combing out long strands of pineapple fiber and making beautiful cloth on hand looms. The Visayan girls are of a pleasing type and all are trained to the effusive Spanish standard of politeness.

In disposition, habits and dress the Moros present a strange contrast to the gentle Visayans. The Samal Moros and Lanao Moros are deadly enemies and something more than persuasion and diplomacy are necessary to prevent them from becoming imbroiled.

RAILROAD MEN VISIT THE GROUNDS

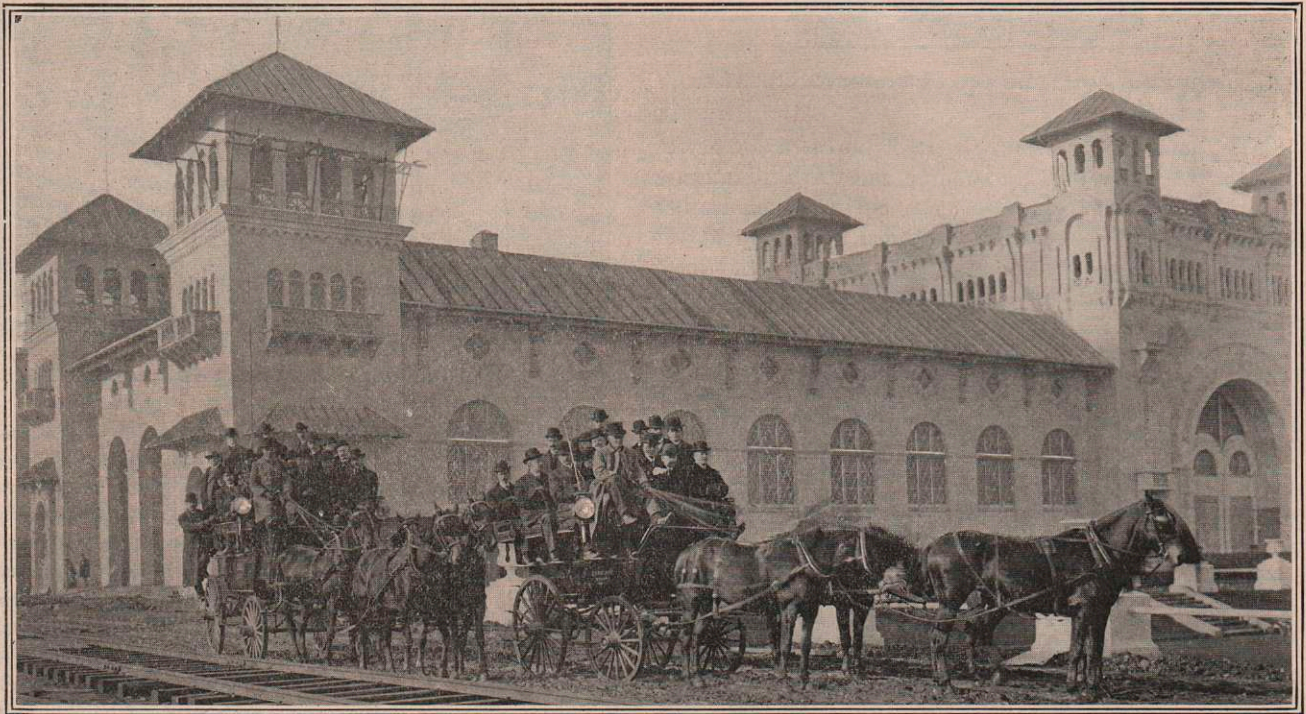
Following the tour of the passenger and immigration agents of the Northern Pacific Railway the traffic men of the system visited the Lewis and Clark Centennial grounds in December. They were under the guidance of officials from St. Paul headquarters and on the Coast were looked after by S. G. Fulton, assistant general freight agent. Among other incidents of their reception in Portland was a reception at the Commercial Club. I. A. Nadeau, general agent of the company at Seattle, made a happy speech on behalf of the visitors, in which he expressed the opinion of all the representatives to the effect that all Northwest cities were equally interested in the success of the Exposition and would strive to help it in every way. The visitors were well pleased with the grounds. One of the things that caused great surprise to the representatives from Buffalo, St. Paul, Chicago and New York were the exquisite blooming roses in massed

1. It is fully expected that the new hotel will be ready to receive guests by May. The plans are all drawn and arrangements have been completed within the past few weeks for the furnishings. With a thoroughly organized force, such as Mrs. McCready has in her employ, it will be smooth sailing getting ready for business. A reproduction of the American Inn—as it is to be called—was intended for this issue of the Lewis and Clark Journal, but has unavoidably been crowded out.



OREGON SCHOOL EXHIBIT

R. F. Robinson, County Superintendent of the Schools of Multnomah County, Oregon, which includes the City of Portland, has been appointed by the Oregon State Commission superintendent of the educational exhibit of the State. Mr. Robinson has taken hold of his work in a manner that indicates he will establish a record. He



DOUBLE TALLY-HO PARTY OF NORTHERN PACIFIC REPRESENTATIVES AT COLUMBIA COURT. EACH VISITOR RECEIVED A CHRISTMAS ROSEBUD.

Lewis and Clark Photographic Co.

beds on the grounds in what is now to the Easterner the midst of winter. The party was composed of: F. W. Clemson, Boston; C. F. Seegar, New York; John S. Donal, Jr., Philadelphia; W. W. Scully, Pittsburg; E. E. Delaney, Buffalo; W. E. Belcher, Toronto; A. H. Caffee, Cincinnati; F. H. Fogarty, Chicago; C. B. Sexton, St. Louis; C. P. Noonan, Milwaukee; T. E. Blanche, Duluth; H. K. Cole, St. Paul; W. M. Burke, St. Paul; Henry Blakeley, St. Paul; F. A. Hawley, Minneapolis; E. H. Forrester, San Francisco; I. A. Nadeau, Seattle.



CONSTRUCTION OF AMERICAN INN

The construction force and the business manager for Mrs. Jennie A. McCready, of St. Louis and Buffalo, are to arrive in Portland and begin the construction work on the Inside Inn at the Exposition grounds by January

has called into conference leading educators, and the result will be the collection of an exhibit of the school educational work carried on in Oregon as will give to the department the high place to which it is entitled. The State will be organized by counties, each county being made an exhibit unit, although cities that so desire may make separate exhibits. The work will be arranged by grades, commencing with the primary and ending with the high school. This plan will enable visitors to understand the educational work of the State in the order of its development. Circulars on the subject will be sent to every school in the State. Compositions of pupils, drawings and paintings made by students, and photographs of school rooms, class rooms and pupils will be features of the exhibit. Several schools have already arranged for exhibit space, among these being the University of Oregon, the Oregon Agricultural College, and the Monmouth Normal School.

What the Exposition is Doing for the Coast

By HENRY E. REED, Director of Exploitation

One of the Principles of Publicity Work is that the Country
is its Own Best Exhibit for 1905

PUBLICITY work of the Exposition has aimed as nearly as possible to play up the Pacific Coast country as a whole, and exploit its potentialities. The idea which has been worked out and following up is that the country itself is the best possible exhibit for 1905. This plan has resulted very satisfactorily for a number of reasons. It has won the co-operation of every community west of the Rocky Mountains because it demonstrated that Portland is doing things for the benefit of all and that it is not trying to use the Exposition as a means of pushing its own interests to the exclusion of other towns.

As a result, San Francisco, Los Angeles, Seattle, Tacoma, Spokane, Salt Lake and other surrounding towns not only admired Portland for its enterprise and spirit creating the Exposition, but will do all they can to make Portland's effort a success.

The idea of "playing up" the country appealed very strongly to the railroads because it gave them something tangible to work to. It is far easier to book Eastern people to visit a country 2000 to 3000 miles away from the Atlantic seaboard than it would be to send them across the continent simply to see an exposition.

In the campaign that has been carried on in the past three years the newspapers and the railroads have proved the staunch friends of the Exposition. We have on our mailing list to receive our press service papers in all parts of the country having an aggregate circulation of 25,000,000 copies.

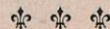
The railroads in all parts of the country are distributing our printed matter, and not only that, but many of the lines are publishing special folders and mentioning the Exposition in their display advertising in the magazines. Our printed matter has been put out far and wide, not only in this country, but in Europe. Over 2,500,000 pieces have been distributed, the daily shipments averaging from a few hundred to as high as 10,000 pieces.

The Exposition Company and the Oregon State Commission have not only printed and paid for all the matter pertaining to Oregon and the Exposition used for their own purposes, but for all of such matter that has been circulated from Portland in the past year. The Portland Commercial Club, the Chamber of Commerce and the Board of Trade have co-operated to circulate the printed matter of the Exposition. This winter folders, attractively illustrated, and other publications pertaining to the Exposition (including the Lewis and Clark Journal) may be found in every winter resort on the Atlantic and Pacific seaboard. In addition to this, the throngs of Eastern tourists who spend the winter in Southern California will receive more direct attention as soon as they are comfortably settled.

The Exposition has now been before the people for over four years, and Portland has steadily pursued her policy of conservatism and has not been carried away with any sort of inflation. In that time Portland has increased her population to 140,000, her jobbing trade to \$180,000,000

a year, her manufacturers to \$50,000,000 a year, her bank deposits to \$35,000,000, and has expended about \$15,000,000 for buildings and public improvements.

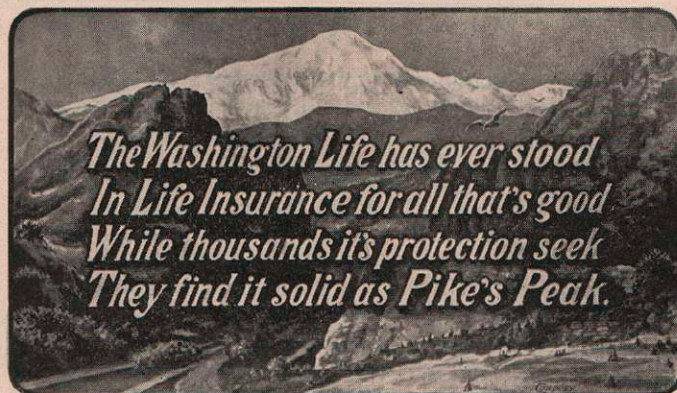
These increases have come naturally and have not been caused by the Exposition, though the Exposition and the publicity given it have been strong factors in calling attention to the city. As a matter of fact, the increases noted have come to Portland while the Exposition was in its preparatory stages, and at a time when a great many people were quite willing to predict it would never be held. The surprise therefore is not that Portland has grown so fast in the past four years, but that it has not grown faster, considering its advantages.



OREGON'S "AT HOME" HEADQUARTERS

The Oregon State Building, the club house and headquarters, where women's clubs and organizations will be located, will stand on the west side of Pacific court fronting on Lewis and Clark boulevard, the principal thoroughfare of the mainland portion of the grounds. The contract for the building has been let to E. A. Lynds for a trifle under \$10,000. The structure is to be completed within three months. The upper floor is exclusively for receptions and for women. The room will be large enough for an immense gathering. Like the exhibit buildings it will be finished in staff in the Spanish renaissance style of architecture, harmonizing agreeably with the general scheme of decoration. The Oregon State Commission will be housed there, and "open house" will be kept and hospitality dispensed in the name of Oregon. At its meeting on December 10, the commission received from the contractor the Liberal Arts Building. The meeting devoted some time to the consideration of educational matters, which are to be very fully displayed.

ASSETS 17 MILLIONS



*The Washington Life has ever stood
In Life Insurance for all that's good
While thousands its protection seek
They find it solid as Pike's Peak.*

Blair T. Scott, G. M. Harry B. Scott, A. D.
609-10-11-12-13 Chamber of Commerce. Portland, Ore.

EXPLOITING MIDDLE WESTERN STATES

The executive board has authorized Special Commissioner Colin H. McIsaac, who has been in the East in the service of the Exhibits Bureau, to exploit the States of Indiana, Ohio, Illinois, Iowa and Wisconsin during the present month. Mr. McIsaac has written Secretary Reed that he has obtained the word of the governor of the state that Wisconsin will be represented on a \$50,000 scale. The proposal seems to meet with a great deal of favor from Wisconsin people generally, and among the first acts of the legislature this month will be the passage of this bill.

It is probable that Illinois and Indiana and perhaps Iowa, will make a display worthy of those populous states, thus returning the compliment which Oregon extended to each of the Eastern Expositions.

Upon his return to Portland within the next few weeks Commissioner McIsaac will probably be sent on a trip of exploitation through the coast states, to assist the citizens in arousing interest in Nevada, Arizona, Utah and Idaho for the supplemental appropriations of such amounts as will provide for state participation on an elaborate manner. In the territory of Arizona there is reported to be a

of officers will assist in the project. There was much enthusiasm manifested. The delegation of T. P. A. commissioners from St. Louis inspecting the Fair are anxious to get the Northwest traveling men interested. The T. P. A. building at St. Louis was a great feature. The visitors were: W. A. Kirchoff, vice-president of the commission; E. W. Donham, general representative of the T. P. A.; Louis Rosen, and E. A. McKenzie.



ANTI-CIGARETTE CONVENTION

Portland has been named by the directors of the International Anti-Cigarette League as the seat of the quadrennial convention and July 15, 16 and 17, 1905, is delegated as the date. This gathering will be composed sympathy with the work of the Anti-Cigarette League. The convention is timed to fit in between the meetings of the American Medical Association and the National Board of Corrections and Charities, so that some of the prominent delegates to these conventions who are in sympathy with the work of the Anti-Cigarette League may take part in its deliberations without the necessity of making a special trip.



Photo by Ford

SALMON FISHING IN THE COLUMBIA RIVER

very strong sentiment for the Western World's Fair. Governor Brady is exceedingly anxious that the great mineral wealth of the next aspirant for statehood should be transferred to Portland.



T. P. A. CONVENTION HERE

The Travelers' Protective Association of Oregon and Washington held a meeting here at which several members of the building commission of the T. P. A. were present. A movement was inaugurated for the erection of a commercial travelers' building at the Centennial. If the local division of the association will take hold and raise revenue for the purpose, it was stated, the national board

OLD CONSTITUTION HOUSE

A letter addressed to Exposition Headquarters by Arthur C. Jackson, Commissioner to the Lewis and Clark show from Vermont, contains the pleasing information that his state is to erect a reproduction of the old Constitutional House, the original of which existed in 1777. Nothing is said by Mr. Jackson as to the amount of the appropriation, but a good round sum is expected.

New Hampshire has announced that it will make its display in a reproduction of the house in which Daniel Webster was born.

As the State of Kansas has a large balance in the Exposition fund it is stated that steps are now being taken to arrange for bringing a display from the Sunflower state to Portland.

Chronology of 1905 Fair

1. President Thomas Jefferson proposes expedition to Pacific Coast to George Rogers Clark, December 4, 1783.
2. Thomas Jefferson sends secret message to Congress respecting West Coast exploration, January 18, 1803.
3. Lewis and Clark expedition started for Pacific Coast, May 14, 1804.
4. Lewis and Clark crossed from Louisiana into Oregon country, August 12, 1805.
5. Lewis and Clark arrived at mouth of Columbia River, November 7, 1805.
6. Lewis and Clark started homeward from Fort Clatsop, March 23, 1806.
7. Captain Clark visited site of Portland and camped on Exposition site, April 3, 1806.
8. Expedition returned to Saint Louis, September 23, 1806.
9. Treaty between United States and Great Britain giving America title to Oregon country, June 15, 1846.
10. Oregon Territory organized, August 14, 1848.
11. International Exposition at Portland first proposed by Daniel McAllen to Henry L. Pittock, November 1, 1895.
12. Indorsed by National Editorial Association, July 5, 1899.
13. Provisional Committee of Arrangements (J. M. Long, chairman) organized, May 1, 1900.
14. Indorsed by Oregon Historical Society, December 15, 1900.
15. Indorsed by the Legislature of Oregon, February 21, 1901.
16. Lewis and Clark Exposition Corporation incorporated with \$300,000 capital, October 12, 1901.
17. Capital stock of corporation subscribed, November 25, 1901.
18. H. W. Corbett elected President of the Corporation, January 21, 1902.
19. Capital stock of Company increased to \$500,000, February 14, 1902.
20. First informal inspection of site by Directors of Exposition Company, July 15, 1902.
21. Willamette Heights and Guild's Lake chosen as the site, September 5, 1902.
22. Oregon Legislature appropriates \$450,000, January 30, 1903.
23. H. W. Corbett, President, dies, March 31, 1903.
24. Corner-stone of Lewis and Clark monument laid by President Roosevelt, May 21, 1903.
25. Corporation elected H. W. Scott, President, and H. W. Goode, Director-General, July 24, 1903.
26. Bill appropriating \$2,125,000 introduced in Congress, November 11, 1903.
27. Exposition indorsed by President Roosevelt in his annual message to Congress, December 7, 1903.
28. Senator Mitchell's bill favorably reported by Senate Committee on Industrial Expositions, January 13, 1904.
29. Senator Mitchell's bill, with appropriation fixed at \$1,775,000, passed by United States Senate, February 8, 1904.
30. Contracts signed by State Commission for first group of main buildings, March 29, 1904.
31. Bill appropriating the equivalent of \$1,000,000 in money, souvenir gold dollars and collected exhibits passed by United States House of Representatives, April 8, 1904.
32. House bill concurred in by United States Senate, April 8, 1904.
33. President Roosevelt signs Lewis and Clark appropriation act, April 13, 1904.
34. Ceremonies incident to breaking of ground for first group of main buildings, April 7, 1904, and May 3, 1904.
35. H. W. Goode elected President, succeeding Harvey W. Scott, resigned, August 3, 1904.
36. Contract for group of Mines and Metallurgy, Machinery, Electricity and Transportation, and Festival Hall buildings let and ground broken, October 1, 1904.
37. Ground broken for United States Government group of buildings, November 15, 1904.
38. Exposition will open, complete, June 1, 1905.

A TITAN IN IRON

Vulcan, a statue 57 feet high and weighing 100,000 pounds, will be one of the striking features of statuary on the Exposition grounds. The statue is by the well-known sculptor, Moretti, and required nearly an entire year to complete. The exhibit originally cost about \$20,000. It is planned to place the statue near the entrance to the Mines and Metallurgy Building in the Plaza of States. Vulcan was cast in Birmingham iron and was displayed at the World's Fair at St. Louis for the purpose of advertising the iron mines of that district.

MUSIC FESTIVAL

Norwegian singing societies have asked for a special day at the Centennial for a reunion of members and for a contest for prizes. Several hundred vocalists are expected to attend and a committee of local Scandinavians is looking after the details. Prospective visitors are members of the Sangerforbund Society which last year held a grand festival in Seattle. Paul Wessinger, of Portland, was elected president of the society and Fred Topken secretary. Clubs in San Francisco, Seattle, Tacoma, Everett, Bellingham, Ballard, Spokane, Olympia and other cities propose to take part and send the best singers to compete.



LEWIS AND CLARK TWINS

Mr. and Mrs. C. O. Matthieu, of Montavilla, Ore., are the proud parents of lusty twin babies, born September 29, 1903. The picture herewith shown affords an



LEWIS S. MATTHIEU AND CLARK L. MATTHIEU.

interesting, if faint, resemblance to the infants' illustrious namesakes. Lewis Stanley Matthieu is shown on the right of the photograph and Clark Leroy Matthieu on the left.



GOVERNMENT MILLING MACHINES

Chairman Hills, of the United States Board, has informed President Goode that the working mint exhibit will be very elaborate. An especially interesting feature, to be conveniently placed in the Government Building for the edification of all visitors, will be the big milling machines that are used at the mints of the United States to "make money." While it will be impossible, of course, to coin actual money, the machines will turn out duplicates of the coins in souvenir coins and medals of original designs. The operation of these machines will be controlled by the Exposition Company, which will supply the necessary current to run them, and the souvenirs will be sold at a nominal rate price. The revenues will be used toward defraying the heavy expense of the exhibit.

THE LEWIS AND CLARK JOURNAL

THE OFFICIAL BULLETIN OF THE LEWIS AND CLARK CENTENNIAL EXPOSITION

ISSUED MONTHLY BY

The Lewis and Clark Publishing Company
200-208 Alder Street, Portland, Oregon

J. D. M. ABBOTT, Manager

Edited by D. CURTIS FREEMAN

SUBSCRIPTION PRICE \$1.50 PER YEAR IN ADVANCE
ADVERTISING RATES ON APPLICATION

Entered as second-class matter, April 5, 1904, in the postoffice at Portland, Oregon under the Act of Congress of March 3 1879.

The Lewis and Clark Journal is issued each calendar month. Its purpose is to illustrate the progress of the 1905 Exposition and exploit its interests and those of the Pacific Coast and the Orient. Correspondence invited.

Vol. III

Portland, Ore., January, 1905

No. 1

CONVENTIONS AT PORTLAND IN 1905

American Medical Association, July 11-14.
National Conference of Charities and Corrections, July 17.
Photographers' Association of Pacific Northwest.
Associated Fraternities of America; with Legal section, Medical section and Secretarial section, July 25.
National Good Roads Association.
United Commercial Travelers of Oregon and Washington, June 9.
Order of Railway Conductors of America, May 9.
W. J. Clark, grand secretary and treasurer, Cedar Rapids, Iowa.
Pacific Coast Electric Transmission Association, June 20.
National Woman's Suffrage Association, June 24.
North Pacific Saengerbund, July 20.
National Association of Letter Carriers, September 4.
Lewis Loyal Legion, August 12.
National Fraternal Press Association, July 24.
Oregon State Press Association.
Concatenated Order of Hoo Hoo of the United States, September 9.
Fire Chiefs' Association of the Pacific Coast.
National Acetylene Association.
Gamma Eta Kappa Fraternity of United States.
American Library Association, July 2-8. Dr. E. C. Richardson, secretary, Princeton, N. J.
Trans-Mississippi Commercial Congress.
National Irrigation Association.
American Association of Traveling Passenger Agents, October 1. Jay W. Adams, president, Portland, Or.
International Anti-Cigarette League, July 15-17. Secretary, E. E. Miller, Portland, Ore.
California Photographers' Association.
Lewis and Clark Special Excursion of Indianapolis, Ind., July 4-7.
National Association Railroad Commissioners, excursion from Deadwood, S. D., August 16.
Grand Lodge Knights of Pythias of Oregon, October 10.
Masonic Veteran Association of Pacific Coast, September 11.
National Editorial Association, excursion from Oklahoma, O. T., June 15.
Nebraska Lumber Dealers' Association, Omaha; excursion, June 5.

PROSPECTIVE CONVENTIONS AND EVENTS

National Pure Food Congress.
League of American Sportsmen.
International Tourney of Rod and Gun Clubs.
Pacific Coast Bench Show.
Multnomah Rod and Gun Club Tourney.
Interstate Commerce Law Convention.
National Livestock Show.

CONCESSIONS FEATURES

Official Monthly Magazine of the Exposition—The Lewis and Clark Journal, 208 Alder Street, Portland, Ore.; editorial office, Exposition Headquarters, Stearns Building.

Official photographers—Lewis and Clark Photographic Co., F. H. Kiser, Director of Photography, Goodnough Building, Portland, Oregon.

Hotel—American Inn Company; hotel of 600 rooms to open May 1, 1905. Jeannie A. McCready and others.

Boats and Gondolas on Guild's Lake—Truscott Boat Manufacturing Co., of St. Joseph, Mich.

Souvenir Spoons of West Coast and Exposition—Clarence L. Watson, of Attleboro, Mass.

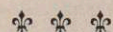
Original Infant Incubator—Schenkein and Couney, of New York.

Oriental Theatre—Geo. Jabour, Portland, Ore.



IA TRADE TENDENCY

An interesting reflection of trade tendencies on the coast is discovered in the announcement that Japanese capital, in the hands of energetic gentlemen from the realm of the Mikado, are obtaining a part of the shingle manufacturing industry of Washington. A market is being developed in the Orient and millmen are taking a lively interest. The intention is to teach the native Japanese at home that the Washington red cedar product is cheaper and better than "shakes," or rice straw or cane to cover their houses. T. Furushima is at the head of the Japanese syndicate which proposes to buy up some of the mills. Shipments of shingles have been made to the Orient. Thus far they have proven satisfactory, although Japanese carpenters have yet to learn how to construct roofs out of them.



FOR ITS HISTORICAL ASSOCIATIONS

Centennial Park will comprehend within its beautiful environs the historical summary of one of the greatest, if not the greatest, and most interesting movements of western civilization and rapid development that has ever been known. Here the past, present and future, with some very marked signs of our manifest destiny, will be focused. This Exposition will—more than any previous affair—demonstrate a tendency in national life and expansion that will be most profitably studied by economists the world over. To the people of the Pacific Northwest the park ground will, therefore, become valued because of its historical associations, and the wish naturally follows that the great log palace of the giants, at least, should not be razed but that a substantial reminder of the glories on Guild's Lake should be allowed to exist after the close of the celebration. There are but few people perhaps, who have grasped the possibilities of the applied art in landscaping until demonstrated at Guild's Lake. All would say, doubtlessly, that Centennial Park is a commemorative name that should last and, being one of the most sightly, most accessible and pleasantest spots around Portland, whereon a permanent museum might stand, the movement already under way for the preservation of at least a portion of the Exposition site as a permanent recreation ground deserves well of the judgment of every citizen of the Northwest and of Oregon.

MISSOURI EXHIBITS READY

"Missouri is to be splendidly represented at the Lewis and Clark Exposition at Portland," states M. T. Davis, president of the Missouri State World's Fair Commission. "We will send out an exhibit that could not be duplicated for \$300,000. The displays for the Western Fair will be selected and prepared for shipment by E. S. Carver, special commissioner from Missouri to the Lewis and Clark Exposition. He is now actively at work."



NEBRASKA PREPARING

J. B. Dinsmore, Nebraska commissioner, and in charge of the livestock exhibit and ex-president of the State Board of Agriculture, writes that Nebraska will have a big exhibit at Portland.

Former Nebraskans in Portland have organized a Nebraska Society for the purpose of extending the hand of hospitality to visitors to the Fair. Proper inducements will be made by the members to people of their state to settle in this country. J. H. Johnson is president of the society and S. M. Benard secretary.

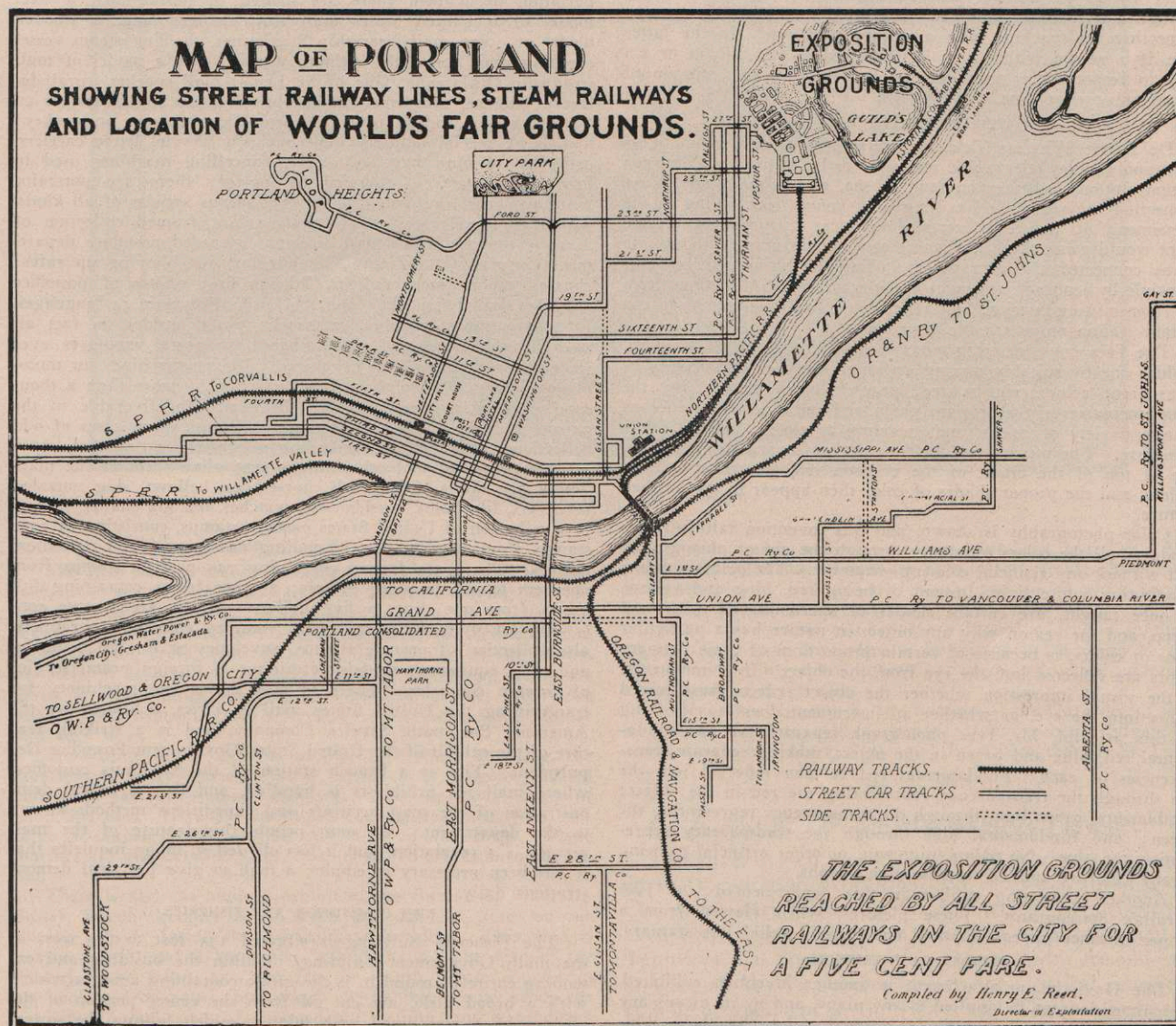
HEALTHIEST OF EXPOSITION CITIES

Portland stands at the head of all other cities, where national expositions have been held, for healthfulness. This fact is borne out by the statistics. The average death rate per 1000 of population of the 346 registration cities quoted in the Federal census of 1900 is 18.6. The City of Portland ranks second lowest in death rate, with 9.5, St. Joseph, Mo., alone preceding Portland, at 9.1.

The following table is instructive and interesting:

Exposition Cities—

Portland, Oregon	9.5
St. Louis, Missouri	17.9
Buffalo, New York	14.8
Omaha, Nebraska	13.5
Charleston, South Carolina	37.5
Chicago, Illinois	16.2
Philadelphia, Pennsylvania	21.2
San Francisco, California	20.5
New Orleans, Louisiana	28.9
Atlanta, Georgia	26.6
Louisville, Kentucky	20.0



United States Government Exhibits

By C. H. McISAAC, Special Commissioner of Exhibits Dept. at St. Louis

This Concludes an Article begun in the December Journal
Showing a Complete Exhibit of the Government

THE PATENT OFFICE.

Gray's Telautograph enables one to transmit his own handwriting to a distant point over two-wire circuit. The sending pencil is connected with two bell crank levers, the shorter arms of which connect with two resistance coils. These short arms are connected with the main line wires, and any movement of the sending pencil will, therefore, cause a corresponding change in the currents traversing the main line wires. As the distant station, the receiving pen is likewise connected with similar bell crank levers, which are normally held in an elevated position. In other words, every movement of the sending pencil is faithfully copied by the receiving pen at the distant station. These machines have been found of great utility in department stores, factories, banks, depots, and other places, where quick information and the permanent record of the same is wanted.

Poulsen's Telegraphone is another interesting exhibit in this department. This invention enables one to magnetically record sound waves on a steel surface, and is operated by talking through a telephonic transmitter connected to the machine, or by connecting the machine with a distant telephone. In the latter case, if a person with whom it is desired to talk, is out or too busy to respond, the message may be recorded and reproduced at any subsequent time.

WIRELESS TELEGRAPHY.

De Forest Wireless Telegraph System is also shown. This invention enables telegraphic messages to be transmitted between distant stations, whether on land or sea, and without any wires connecting the same. It has long been known that owing to the phenomena of induction, certain electrical disturbances at one point would cause the disturbances at a distant point, although no wires connected the two places. This invention utilizes this principle by sending out waves of induction in all directions from the transmitting station, and then receiving the same at the distant station on a suitable instrument.

The Ives color printing process, also a part of this exhibit, enables one by suitably mixing or superposing certain shades of transparent color, crimson red, peacock blue and yellow, the complementaries of the primary green, red and blue, to produce an infinite variety of colors, and therefore to closely imitate colors of nature. The mixing is done by printing separate impressions, one of top of the other, of the crimson red, peacock blue and yellow, and the proper shades of color then appear in the finished picture.

Color photography is shown, and this invention faithfully reproduces all the colors of nature through the aid of photography and without any artificial coloring whatever. The primary colors constituting white light, instead of being red, blue and yellow, as once taught, are certain shades of spectrum red, blue and green, and the reason why any object in nature has a particular color or colors, is because of certain proportions of these primary colors are reflected into the eye from the object. It is immaterial to the visual impression whether the object reflects these mixed colors into the eye, or whether an instrument does it. Working on this principle, Mr. Ives photograph separates all the fundamental red, blue and green in the object, making separate transparencies of each. Fundamental red is then reflected into the eye through the transparency representing the red in the object; fundamental green light through the transparency representing the green; and fundamental blue through the transparency representing the blue. No paints, pigments, or other artificial coloring of any kind are applied to these photographs.

Another interesting exhibit in this department is the Ives Parallax Stereograms. These pictures, when viewed from a proper distance appear to stand out in solid relief like statuary.

WONDERFUL INVENTION.

The Davis piano attachment is another invention exhibited. This invention can be applied to any piano, and by its means any one unskilled in music can render correctly, phase by phase, difficult musical selections. A perforated music roll is passed over

a metal contact roller, and each perforation in the former causes a circuit through a magnet to be closed, and the latter in turn causes a lever shoe to be pressed into contact with the piano keys, raise the rear ends of the same, and to actuate the striking hammers and thereby sound the note corresponding to the perforation in question.

Electroplating on non-conducting substances is a very wonderful invention, and is illustrated by electroplating intricate patterns and designs, formed by first rendering lace work and other non-conducting substances conducting, then depositing a coating of metal on the same by a special process, and finally burning out the original lace or other foundation, leaving only the metal pattern behind.

POSTOFFICE DEPARTMENT AND POSTAL MUSEUM.

In this department there is a model postoffice for the World's Fair Grounds, where work is carried on by all departments. Methods of mail distribution are also shown. In the mail transportation department there are models of postal cars, a steel model of a United States mail ship 12 feet long, a wooden model of ocean mail steamship Southerner, the first steam vessel carrying mail across the Atlantic Ocean; also a model of mail steamship Ocklawaha, City of St. Louis; mail coaches, rural delivery wagons, uniformed models of Western mail carriers on horseback and Indian runner; Porto Rican carrier on donkey; models of special delivery messenger on bicycle, letter carriers, collection of mail bag and locks; cancelling machines used in first-class postoffices, operated by power; there are portraits, paintings, mail equipment and miscellaneous articles of all kinds. There is a collection of old manuscripts, framed collection of revenue stamps; medal and diplomas awarded postoffice department since 1876; tools used by burglars for blowing up safes; charred money recovered in Chicago fire; photos of postoffice officials; dead letter office, and the Lord's Prayer in 54 languages. Pneumatic tubes, pouches, knapsacks, postal guides, in fact all paraphernalia necessary and gathered by postal employees ever since the department was organized. Biogen machines for microscope pictures. Then there is a collection of more than a thousand curious articles found in the mails undeliverable to the person addressed. This collection consists of seven cases of odd collections of everything, including alligators, rattlesnakes, centipedes, tarantulas, and other things sent alive through the mail. There are skulls, false teeth, horseshoes, bellows, dog muzzles, revolvers, lily bulbs, washboards, watches and log chains. There is a collection of United States postage stamps, consisting of 2191 stamps from 1847 to 1903, including newspapers and periodical stamps. There are frames containing 729 postage stamps from one cent to one hundred dollars; another frame containing full sheets from one cent to five dollars. There are frames containing all styles of postal cards, stamped envelopes, wrappers, also collection of postage stamps, envelopes of foreign countries and mail equipment models pertaining to foreign postal service of foreign countries. There is also shown the machinery for transmitting the United States mail in cities, exhibited by the American Pneumatic Service Company, and is a striking feature of the exhibit of the United States Government Postoffice Department. This is a branch station of the St. Louis postoffice, where mail for exhibitors is handled, and is a practical demonstration of the most accurate and expeditious methods known to the department. To most people this feature of the mail service is a revelation, and it has elicited so many inquiries that it has been necessary to employ a man to give practical demonstrations daily.

FISH COMMISSION AND FISHERIES.

The Fisheries Building is situated 175 feet to the west of the main Government Building. Within the building and extending entirely around it, is the grotto containing aquaria which, with a broad aisle, are cut off from the center portion of the interior by a wall lined with mirrors which follows the square outline of the building. The species exhibited are representative

of salt and fresh water of all regions of the United States, varying during the Exposition period as they can be secured at different seasons. In the pool in the center of the court seals and other large aquatic animals disport themselves. The remainder of the exhibit occupies the court itself, and is treated in four sections representing the fish cultural work and the scientific investigation of the Commission, fishing methods and fishery products.

In the section devoted to fish culture, it has been attempted to show in a measure processes of hatching fish eggs, and here is to be seen trays or jars containing eggs of different species, as they are obtainable at particular seasons. Numerous forms of hatching appliances and accessories, collecting and spawn taking outfits, and apparatus for transporting fry, with a model of one of the special railroad cars, are shown. Here also is shown a fish wheel such as is used in the upper waters of the Columbia River, a working model of which is here exhibited.

A representation of the bed of the Clackamas River of Oregon, one of the principal salmon streams of the United States, shows the rack, traps and pens used for catching and retaining fish for the purpose of obtaining eggs for hatching purposes.

The lobster has also been a subject of much study, with a view to its successful cultivation.

in the state. This gives in effect a birdseye view of the chief crop productions of the entire country.

AVIARY OF THE NATIONAL ZOOLOGICAL PARK.

At previous exhibitions, the National Zoological Park has contented itself with a display of models and pictures, but at this Exposition it has erected (and will do so at Portland) a very large cage for birds, in which they can fly about a will. In it are placed about 1000 birds notable for their brilliant colors, sweet songs or peculiar forms, including many characteristic birds of North America and the tropics. The cage encloses trees and shrubs, pools and running streams where the perching birds find shelter and the aquatic birds proper exercise.

IN THE FORESTRY EXHIBIT.

The indoor display of this Bureau is located in the Forestry, Fish and Game Building because of its intimate relation to the lumber industry. The exhibit consists of 150 large photographic transparencies illustrating every phase of forestry, and are displayed in an arcade 87 feet long by 16 feet wide. Typical forests, timber trees and forest conditions of the United States are shown as they exist; also the cutting of timber forests, their renewal; damage done to them by fire, insects, over grazing and by torrents. Forest planting is shown, as are plantations



AN OREGON HOME IN JANUARY

EXHIBITS AND DRILLS OF LIFE SAVING.

The Life Saving Station is manned by a keeper and ten surf men, drafted from various stations of the Life Saving Service, and fully equipped with the appliances used in the service, and the necessary furniture and appointments for the residence and subsistence of crew, who carry on their duties at the station precisely as is done at a regular station. Exhibition drills are given at stated times, showing in a realistic manner the rescue of shipwrecked people from a wreck by the breeches buoy life car and surf boat.

In addition to the exhibits in the Government Building, the Quartermaster Department has a collection of wagons, located outside of the Government Building. Also the model camp of U. S. marines. Here are encamped 200 enlisted men, who continue a regular daily routine and drill of the corps. These marines are also detailed to guard duty in the Government Building.

There is also the outdoor exhibit of the Bureau of Plant Industry, which occupies about seven and one-half acres on the sloping hillside facing the Agricultural Building. This area is nearly square, and in its center is laid out a large map of the United States more than 550 feet in length. State boundaries are indicated by paths from which the exhibitors may study the exhibit. In each state are planted the leading crop it produces, on areas proportioned to the areas these crops actually occupy

and treeless regions and where forests have been destroyed. Supplementing the transparencies are 75 colored bromide photographs illustrating every feature of forestry and forest work carried on by the Bureau of Forestry.

These Government exhibits are a liberal education in themselves. No matter how often a person may visit them, he will discover something more interesting, more instructive and more entertaining at every visit.

The various departments and bureaus of the Government service will be fully as well represented, if not to better advantage, at the Lewis and Clark Centennial Exposition than at St. Louis.



A RELIC OF MERIWETHER LEWIS

The silver watch worn by Captain Meriwether Lewis on the exploration expedition 100 years ago through the Oregon country to the Pacific, and which was believed to have been stolen from him when he was murdered in Tennessee, has apparently been resurrected. An old lady in Weston, W. Va., claims to own the identical timepiece. It will be exhibited in the Lewis and Clark collection at the 1905 Exposition.

Rain When the Sun is Shining

By HARRY J. NEELY

Irrigation is Attracting the Nations of the Earth
to the Pacific Northwest

NOT UNTIL recent years has it become a generally accepted fact that "irrigation" is a success. Nowadays every journal and magazine of repute has its department on irrigation or handles the subject intelligently as occasion demands. Many things of interest in connection with irrigation are coming up every day and the eagerness to publish these facts is only exceeded by the avidity of the public to absorb them. The steps taken by our federal government in the promotion of irrigation has perhaps aroused more interest than any and all other causes combined.

Among the most interesting and, perhaps to many, surprising facts presented is the statement that sixty (60) per cent of the produce of the world is grown under irrigation.

Another phrase equally as interesting is the claim that this sixty per cent of production is obtained from less than twenty-five (25) per cent of the land actually in use for that purpose.

Most of our readers are aware of some astonishing demonstrations under irrigation. The Northwest is leading the country in development of irrigation, great strides having been made along these lines by Oregon, Idaho and Washington.

During the past few years private enterprise has constructed a system of canals in the Spokane valley, extending from a point near Rathdrum, the county seat of Kootenai County, Idaho, to within a few miles of Spokane, Washington, a city of 70,000 people. The distance between these two points is about thirty miles and the valley is from three to five miles in width. The soil is a granitic

loam, being composed of fine gravel and rich black earth. The gravel in the soil serves to hold the ground loose and tends to keep it from packing or baking when irrigated.

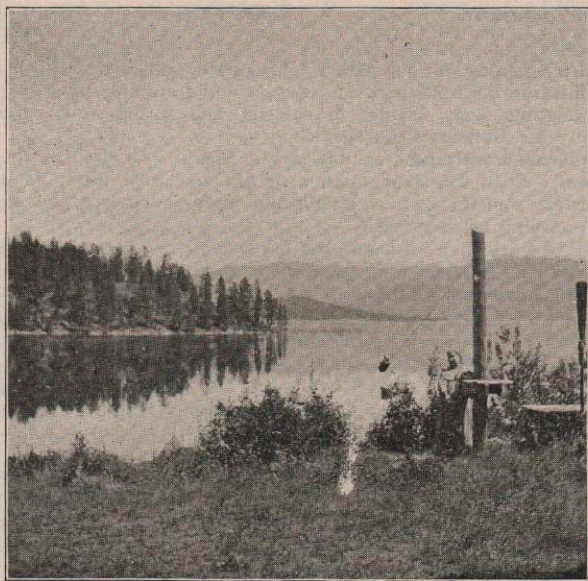


FIELD OF CANE

It also attracts heat during the heat of day and imparts it to the vegetation at night, thereby causing growth that would not result otherwise, for our nights are always cool.

The possibilities of irrigation are so great that figures are staggering. For instance: two acres of tomatoes brought \$1170.00. One acre of cantaloupes made the owner \$384.67 net profit. Cherry trees yielded over 200 pounds per tree and sold for three and one-half cents per pound on the tree. Hundreds of instances showing enormous yields and profits could be cited. Eastern people can hardly credit their eyesight when visiting irrigated tracts, whether in the Spokane valley or elsewhere.

Yields under irrigation in the Spokane valley equal any other district on earth and the markets are without question as good as can be found in the United States. Spokane is only ten to twenty miles distant and the valley served by main and branch steam road and an up-to-date electric line. The Coeur d'Alene mines, where thirty-one per cent of the silver and lead of the United States is produced, is only a few miles distant and can be supplied by Spokane valley farmers more readily than from any other point. The great timber and mining districts to the north also furnish extra good markets. In all, the Spokane valley is exceptionally well located and destined to become one of the greatest and richest districts in the great Northwest.



SOURCE OF WATER SUPPLY



JOHN GILL.

Fish of the West Coast

By JOHN GILL and WILLARD P. ANDRUS

Description of the Various Species and their Habits



WILLARD P. ANDRUS.

How may I identify a fish? It is easy to know a fish, or even a *true* fish; but a more interesting question is: What *kind* of a fish is it? There our difficulty begins? We may readily say that a certain specimen it is—a bass, a perch, a herring, or a trout, but which particular species of the several kinds of bass, perch, herring, or trout, is it? This is what every angler, commercial fisherman and every one interested in nature wishes to know. Though some of our fishes are not difficult of identification, many of them are.

There are now known to be, north of the Isthmus of Panama, more than 3,300 species of fishes and fish-like vertebrates, many of them being so closely related that only the trained zoologists can identify them.

But such, fortunately, is not the case with the food and game fishes. Most of these are easily identified. A little time devoted to the specimen in hand and a careful reading of the keys provident in works upon ichthyology will enable one to locate it accurately.

In the first place in studying a fish there are some things regarding its anatomy which one must know. He must know the names of the fins, the parts of the mouth and other parts of the head and body—also something about the different kinds of teeth and the bones upon which they are placed; also the different kinds of scales and their arrangement and how to contrast one with another.

He must in some cases examine the stomach, air bladder—passage from stomach to the intestines, gill rakers and the bones of the head.

In descriptions of fishes, certain comparative measurements are made. The length of the head and the depth of the body are always compared with the standard length of the fish, which is the distance from the tip of the snout to the base of the tail. The diameter of the eye, length of snout, maxillary-mandible (upper and lower jaws), length of fins, number of spines or rays in the same.

As an application of this system of comparison, let us take the well known black bass.

The expressions, "head 4" or "depth 4" mean that the length of the head in one case, or the greatest depth of the body in the other, is contained four times in the length of the fish, measured from the tip of the snout to the end of the last caudal vertebra, the caudal fin (or tail) not being included. "Eye 5" means that the horizontal diameter of the eye is contained five times in the length of the head. "Scales 11-85-25" means there are 11 rows of scales between the front of the dorsal fin and the lateral line; 85 scales in the lateral line itself, and 25 scales in an oblique series downward and backward from the lateral line to the origin of the anal fin, or the vent. The fin formulas are usually shortened as much as possible; thus "D-10," "DV-9," "D-VIII-13" means that in the first case, "D-10," the fish has a single dorsal fin of 10 soft or articulated rays; in the second case, "DV-9," a single dorsal fin of five spines and nine soft rays, and the last, D-VIII-13, indicates two dorsal fins the anterior of which is composed of eight spines and the other 13 soft rays. Spines are always indicated by roman letters and rays by figures. The abbreviations for the other fin formulas are similarly explained.

The measurements given in the text of books are intended to apply to the average of mature fishes.

Much reference is had in these notes to such excellent works as Jordan & Everman's American Fish and Game Fishes; G. Brown Goode's American Fishes; Charles F. Holder's Big Game Fish of the United States, and others.

When we have selected the best descriptions of varieties in-

habiting our waters, and added such further information as we have been able to gain, we must confess that there is much to be desired.

INTERESTING DIFFERENCES

There is as great a difference in the external appearance of our trout and salmon at different seasons as there is between the full-feathered and brightly-plumed cock in March and the same bird in the dumps of the moulting season. To these constitutional variations are to be added, in the case of many fish, the well-known changes from the average or normal appearance produced by difference of environment.

Size is a most confusing point in the determination, and may count for nothing. As an example of this, the writer mentions an incident in his own experience.

About twenty years ago a fisherman caught five or six dozen trout from Mill Creek at Walla Walla, and took them alive to the Stine House, where an aquarium awaited them. They were within an ounce of the same weight, lived in water from their native stream, were fed indiscriminately and thrived for at least three years, much admired by the patrons of the hotel. By the end of this time the aquarium was pretty small for them. All the fish lived and were equally healthy and active. Several times each year I saw them, and in the third year there were many fish of over a pound weight, and some of two pounds. Yet a great proportion had not added an inch to their stature nor an ounce to their weight, though those little fish got rather more than their proportion of food, were perfectly healthy and as active as if in the ideal stream they were taken from.

Even food itself seems to be not essential to the growth of trout—at least the food we see them take.

I met at the outlet of Moosetocmaguntic lake in Maine, back in the seventies, Stillman Hayford, who was one of the state's fish commissioners. He pointed out a spot in the strong current which poured from the lake above into the Upper Richardson, in which he had sunk a "car" the previous October deep enough to remain in unfrozen water through the winter. The trout were 80 in number, were large specimens, and were weighed carefully. It was May when the fish were next seen and released. They had lain at anchor in their cage seven months, and the only food possible for them must have come through the bars and been divided among them, but there were just four score, and their weight was five pounds greater than before.

The amazing changes in the markings and color of our salmon, their structural changes, and even the changed color of their flesh, make the task of identifying the different species in the spawning season very difficult. Individuals of the same race even will vary greatly from brassy hues to purple. On the day this line is penned the writer visited a market where yesterday he saw chinook salmon in fair condition, with characteristic markings. Today two salmon quite out of condition and marked very differently were confidently described as chinook salmon by the market man. A young fisherman stood at my elbow while I examined the fish, and denied they were chinook, asserting they were "fall salmon or toolies." The latter name is applied by cannerymen and fishermen to any spent, worthless salmon, but as even these will fill cans, and somebody found to buy them, there is a good business done in toolies. As this kind of fish—usually a spent dog salmon—is almost valueless even for canning, it is surprising to find it exposed for sale as fresh chinook in a prominent market. Such fish would be very quickly cremated if we had proper public in-

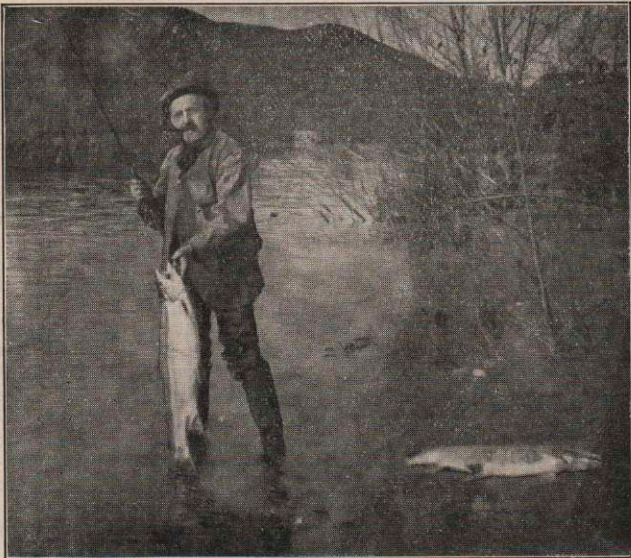
spection of our markets, and along with them would go much weary-looking fish refuse that comes to us from California.

NOTES ON SALMON

There are five species of the true Pacific salmon. They are distributed from Monterey Bay on the American coast and Japan on the Asiatic in almost all streams reaching the sea. All these salmon spend the greater part of their lives in salt water, ascending the streams only for the purpose of spawning. When they reach the mouths of the river which they are to enter they cease feeding and immediately the digestive organs begin to change, the stomach shrinks to a tube of almost no calibre and quite thick walls. At the same time the generative parts increase in size. In the female the eggs increase from the size of a small shot to a diameter of one-third of an inch. The snouts of the males become lengthened and hooked, backs become arched or humped and the fish thinner.

After spawning the fishes rapidly weaken and drift with the current until stranded or overtaken by death they fall to the bottom in the deeper waters below the beds. So far as known none ever survive to repeat the reproduction act.

Salmon are readily identified and distinguished from the various species of trout. If one will learn which is the anal fin, i. e., the one on the lower side nearest the tail, one can easily differentiate trout from salmon.



ON THE SOUTH UMPQUA RIVER.

All the salmon have from 14 to 20 rays or ribs in this fin, exclusive of the stubs or rudiments in front of the first ray. None of the trout in our waters has more than 11 rays or ribs in this fin.

KING (OR CHINOOK) SALMON

Oncorhynchus Tschawyttscha

The largest, best known and most valuable of the salmon family is the "king salmon" also called the "chinook," "quinnat" and spring salmon. This is the largest of the species, averaging 20 pounds, but often attaining a weight of 60 pounds. Occasional monsters of 80 pounds are taken in the Columbia.

The chinook is known by angular and often X-shaped black spots on the back and tail, is of a dull, silvery color, growing dusky as the breeding season comes on. In the spring the flesh is red and oily, tender and delicious, for the chinook is indeed the finest of all the salmon family.

The king salmon run only in the larger streams fed by snows. In the Yukon it runs a distance of 2,850 miles from the sea. It can not run so far in any other river, but it follows the Columbia and Sacramento rivers to their source.

The chinook is taken but seldom in the first two winter months of the year, but is then large and fine. By March they are more numerous and there is ordinarily a May run of large numbers and fine quality. A section of the fish at this season is a sight for anatomists, the great longitudinal muscles being very beautifully displayed, each laminal band separated from its neighbors by a pearly section of fat and epithelium so that these powerful and flexible thews may operate harmoniously.

The color of the flesh is that exquisite combination of rose and orange which we know as "salmon color."

The strength of a well-grown chinook in his prime is tremendous. He would wrench a trident spear from the wielder's hand or break its shaft into splinters, so our Indians spear them with their old weapon, a spear with a detachable point which is driven through the fish, comes off on the other side and by the leather thong which is attached to it and the handle gives the fisherman a fighting chance to land the prey. These fish run in such numbers in the swift rapids at the Cascades, Celilo and Willamette Falls that with hand dipnets plunged into waters white with foam in which fish are invisible, many are taken. This method, and spearing as above, are aboriginal fishing customs, and may be seen still, as our Indians still catch and cure great numbers of salmon.

SEINES AND FISH WHEELS

A thousand or more salmon boats put off for the fishing about sunset from all points on the lower Columbia, hundreds from Astoria and the fisheries on the Washington side. The preference is to drift down with the ebb-tide and meet the incoming fish. The men who fish west of Cathlamet have a great risk of drifting out over the bar of the Columbia. The fish are taken more numerous there, where the salt and fresh waters mingle, and many fatalities occur yearly, keeping two life-saving stations busy. All night the boats drift silently westward, and in the early morning (daylight at 3 a. m. in this latitude in midsummer) the quarter-mile long net is slowly drawn in. This vast net is a floating fence, 10 feet to 20 wide, kept vertical by wooden floats above and lead weights below. With a thousand such spread nightly in the river from Rainier to the sea it is only a wonder that any salmon return to our waters. As the net comes in and fish are found (always caught by the points of their gill-covers, for which reason we call these gill nets) they get a knock on the head to quiet their struggles. When all the net has come in and is stowed in a heap like a haystack in the boat's stern, and from a score to a hundred prime chinooks in the cockpit, the fishermen go forward and hoist their spritsails and wing it up the grand river on the huge long-roll of the instreaming seas. An enviable life this. Thousands of starched and be-cuffed clerks never know in a lifetime a sensation as noble and free and manlike as this struggle homeward in breast of tide and wind, up past the bold, black rocks of Cape Disappointment, where the white horses of the seas charge in gleaming squadrons over the mile area of Peacock spit; up past the green garrison grounds and the glowing banners of Fort Canby; a long tack southward past Sand Island and then a fair wind up the fairway of the noble channel, with Tongue Point looming blue 10 miles away toward the sun, Astoria sparkling proudly in the full heart of the sunrise; Tillamook Head dim and gray far southward; Saddle Mountain castellated, purple, capped with the lingering snows of the long-past winter; the dreamy, transparent mountains at the head of Gray's Bay and Cathlamet, and hundreds of sails of returning fishermen gleaming and darkling in sunshine and shadow, from the great combing billows of the bar in a moving pageant for 30 miles up the grandest river of the Pacific.

The fishermen have little stoves on board and usually cook breakfast on the run up river. The gallant boat leaves the miles behind her; Chinook, Flavel, Scarborough Head, Point Ellice, Astoria, Tongue Point glide past to westward, and our boatmen drop the sail and round-to with the skill of experience in a deep little harbor on the north shore, where the picturesque cannery with its nets and swaying boats and velvet shadows among the tall piles, and the purple curtain of basalt rock rising sheer a thousand feet almost from the river's edge make a subject worth the skill of a great painter.

For a hundred miles above Cathlamet the seines are set, almost to the Cascades. About Rooster Rock the fish wheels appear and grow more numerous till we reach the heart of the mountains. The fish wheel is a familiar wonder—works while you sleep, like the praying wheels of India—and slowly and relentlessly scoops the unsuspecting salmon from the swift water of the rapids along shore. In heavy runs of fish single wheels have taken above 10 tons in a day, and often the canneries have to refuse fish because they cannot be handled as rapidly as they are caught. Having run the gauntlet of the thousand nets on the lower river, the myriad fatal traps in the shallows of Baker's Bay and the wheels at the Cascades, it would seem there should be few salmon left to urge their way far eastward to their spawning beds; but at the Grand Dalles another stretch of fish wheels of gigantic size dispute the passageway. Here fortunes have been made also, nearly 250 miles

from the sea, from the salmon catch. But thousands escape, and by some mysterious power and skill surmount the thunderous falls of the Columbia at Celilo, then fairly free from danger, they cleave the Columbia and Snake for many hundred miles further, east, south and northward. You shall find them in little tributaries in Idaho, British Columbia and other states of the Pacific, struggling still upward to the cold fountains in the mountain fastnesses where their fry shall develop to a size and strength which will permit them—or more truly a tenth of them—to retrace the vast distance, down from heights of many thousand feet, a thousand miles and more to the sea. But the old fish never return. Their mission is complete when the spawning season is over, and their putrefying bodies taint the air in the canyon far up in the western ravines of the Rocky Mountains.

During the last few days of the season of 1903, an incredible number of salmon were caught about Astoria. For several days the catch ran above a thousand tons per day. The canneries were glutted and hundreds of tons were wasted.

The Blueback or (*Oncorhynchus nerka*) is also called the red salmon, sockeye and redfish. In the spring it is very bright blue above, with the belly silvery and no spots on the body or fins; later it becomes deep crimson, the head turning bright olive green.

At all times the flesh is bright red, firmer and drier than the chinook, but ranks next in value to that fish. The red salmon rarely exceeds 10 pounds in weight, spawns in gravelly streams just above where they flow into a lake, consequently a red salmon never runs into a river which does not flow through a lake. It runs in early summer, mostly in July, and Aug., and in streams adapted to its use runs in countless numbers.

SILVER OR COHO SALMON

(*Oncorhynchus Kistutchi*)

Called silver sides, is in size and color very much like the red salmon. Its dorsal fin is tipped with black. Flesh softer and pale instead of red in color. Flesh is excellent, quite as good as the red salmon. The silver salmon runs in the fall, not traveling long distances like the king salmon, spawns in any fresh water, often close to the sea, and never goes far out into the ocean. Its usual weight is about eight pounds, but frequently reaches nearly double that. This beautiful salmon is taken in great numbers in traps in the lower Columbia in the fall, when it seems to be in perfect condition. It is a wonderful sight to see a fish trap raised and a ton or two of these active, powerful fish gaffed and snatched into the fisherman's boat. With only a short preparatory run a prime "silver-side" will leap 10 feet in air and clear as many yards or water in length. This variety offers great sport to anglers in September and October at the mouths of rivers and in Yaquina, Tillamook and other bays, where it is taken by trolling with spoons.

DOG OR CHUM SALMON

(*Oncorhynchus Keta*)

The dog salmon is a handsome fish, a little larger than the silver salmon, weighing on an average 10 pounds. Is colored like the king salmon but has no black spots on the fins, and on the sides there is a suspicion of vertical bars, the dark color of the back extending downward in bar-like incursions. This salmon is a fairly good fish when fresh, but the flesh is very pale and when boiled becomes mushy and worthless.

It is used in large quantities in Japan and is found in the waters of that country in great abundance, the Japanese salting and smoking great numbers of them. Canned dog salmon is worthless, being a dirty white and having a rank, muddy flavor.

THE HUMPBACK OR PINK SALMON

(*Oncorhynchus Gorbuscha*)

The humpback, or pink salmon, is a small fish weighing five or six pounds. Has oblong black spots on the tail, and its general color is iron-grey. The flesh is softer than that of other salmon and is of a brownish shade. Spawns near the shore in every kind of stream or brook. Swarms in greater numbers than all others combined. Is little used except by Indians, who salt them down and as the "noble red man" will salt down, smoke, cure and eat almost any old fish, if it's only salmon, this is distinctly the "Injun's fish."

Value of canned salmon of the Pacific amounts to about \$12,000,000 annually and outranks in economic value all the

other 5,000 species of fishes in the Pacific taken together.—(Pacific Fisherman Annual Number, 1904.)

THE CRAWFISH

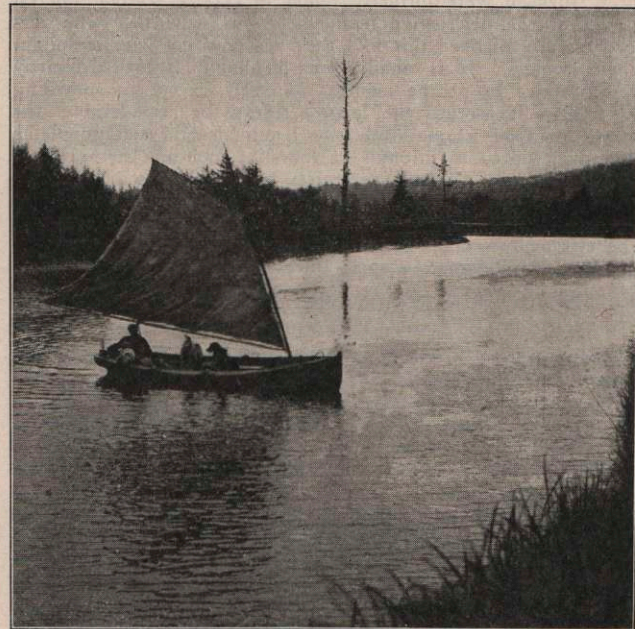
The spiny lobster, locally called crawfish, but rightly crayfish, which takes the place of the lobster in the Oregon markets, is a valuable food product. Crawfish are especially numerous in the sloughs of the Columbia and Willamette rivers and the size and quality of our local variety has led to its being transplanted to some other states, where it has done well. The industry has assumed vast proportions in Portland. In 1898 the entire receipts of the various dealers amounted to 52,800 dozens and the demand is rapidly increasing. Thousands of dozens are each year shipped out of Portland.—(Pacific Fisherman, January 1, 1904.)

Portland restaurants are as famous for crawfish as for any indigenous article of food. This little lobster has quite as fine a flavoring as his larger kindred of the seas. The sale and taking of crawfish should be at once prohibited in the spawning season unless we are bent upon their extermination, which indeed, appears to be the purpose of many, and not alone of the crawfish.

THE CRAB

Cancer Magister

The "Pacific Fisherman" states that 3,000,000 pounds of crabs are caught annually about San Francisco, and that the



A FAVORITE FISHING HOLE.

value of this product is about \$80,000. Formerly great numbers were taken in San Francisco Bay, but over-fishing has thinned them out so that the greater part of the catch is now from the outside coast.

The crab is rare in Portland markets. The supply is irregular and unsatisfactory and the demand usually far exceeds the supply. Clatsop Beach farmers send us a few when all is convenient for them to go over to the shore and rake the crabholes. Also a small part of Yaquina Bay catch comes to us. Our largest dependence is on Shoalwater Bay, and our connections in that direction are not so rapid and frequent as to improve the crabs' gastronomic value when he reaches us. To know this great crustacean at his best he must be encountered in the vicinity of his natural habitat, say at Tillamook, and then he is a creature that claims no relationship to the crab of the Rose City. About three per cent of the San Francisco crab harvest is gathered on our immediate coast, so the matter is of no great present commercial importance.

SUCKERS

(*Catostomidae*)

The sucker family is a large one, embracing some 14 species upon the Pacific Coast, scattered over every state, found in almost every stream and many lakes. They do not rank very

high as a food fish, although many people seem to find them suited to their tastes, particularly those fish taken from very cold waters early in the spring.

The Sacramento sucker abounds in California waters, is about a foot long and a favorite with Indians.

The Columbia River sucker—found in the Columbia—is yellow in color and eagerly sought and consumed by the Chinese. Utah Lake, known as “the greatest sucker pond in the world,” is where these fish abound in greatest numbers. Upper Klamath Lake, Ore., is a close rival for such honor.

During August, 1903, the writer hooked an immense sucker in Upper Klamath while trolling for large trout. In some way the fish struck the spoon—a No. 6 Skinner—with his tail and became hooked and when he was hauled into the boat and inspected, measured, “hefted” and gently cussed, the record showed 28 inches long, 16 pounds weight, and was readily awarded the ribbon as the biggest sucker ever seen that wore scales and fins. Suckers are abundant in the Willamette and many other of our rivers.

OREGON WHITE STURGEON

(*Acipenser Transmontanus*)

This fish ascends the Fraser, Sacramento and Columbia rivers in large numbers in the spring. It is known under several names: Sacramento sturgeon, Columbia sturgeon and Pacific sturgeon. It attains enormous size and is one of the largest fishes. The largest of which we have any record measured 13 feet and weighed 1,000 pounds and was taken in Snake river, Idaho. Large sturgeon were formerly found in Gray's Harbor, but on account of the destructive methods of our fishermen who formerly greatly disliked this fish, they are now not very abundant in our waters. It is anadromous in habit, living ordinarily in salt water or at the mouths of rivers except in spawning time, when it ascends the largest rivers for considerable distances. Its food is small fish, small animals and aquatic plants which are sucked in through its tube-like mouth. In the lower Columbia it feeds on sardines, smelts, etc. The season for catching these food fish is April to November. Roe used to make caviar. Smoked sturgeon is now considered one of the finest delicacies and commands a high price. Caught in rivers by long lines with numerous short lines attached, and hooks.

RED SIDE—RED HORSE

(*Moxostoma Aureolum*)

A migratory fish, allied to above and found in great schools in coast range streams in May and June, when it ascends the streams to spawn. The writer has seen large pools on Milton and Scappoose creeks so paved with these fish that no spot of the bottom was visible in 50 square yards. This fish grows to half pound weight. It is of no value as a food fish, being rank and unpleasant in odor. At time of spawning, which is the only time it visits our streams, it is marked by a strong red longitudinal mark on its side. It appears to be a cougenier of the perch.

COLUMBIA CHUB

The Columbia chub is found in the streams and lakes of Washington, Idaho, Montana and Oregon, chiefly in the Columbia basin and waters about Puget Sound. In the Snake river this minnow is most abundant and is locally known by the misleading names of “fresh-water herring,” “whitefish,” and at one place they are even called trout. It seldom attains a

greater length than one foot and is very bony. It is frequently served at hotels as whitefish and trout. It will bite at any sort of bait, and is a fair fighter. The head is bluntly conic; mouth nearly horizontal, maxillary not reaching front of eye; color, dark olivaceous above; yellow silverish sides, pale white underneath; fins pale, a dark, reddish lateral band, below which is a pale stripe which extends to ventral fin. They are sold as bass frequently.

SQUAW FISH

This is one of the largest of the minnows, reaching two feet in length, a size which shows that “minnows” are not necessarily little fish. Abundant in all large streams running into the ocean. Feeds about the mouths of rivers; jumps for its food like the trout and at evening will rise to the fly. At any time will take hook baited with salmon spawn and will fight vigorously. Angling for this fish through the ice is one of the popular winter amusements in Idaho. It is commonly known as the Sacramento pike, chub, big-mouth, box-head, yellow-belly.

Fishermen trolling for salmon at the falls of the Willamette take many of these fish and farther up the Willamette, where it is known as “whitefish,” on the gravel and sand of the more rapid river it takes the fly readily and is a considerable addition to the angler's pleasure. It is abundant at Harrisburg and Independence.

CARP

Of this fish we have more accurate historical data than of any other fish, and although it is a fish that most anglers despise and refuse to accept as in the category of game fishes, still it is entitled to a place in that class. It is highly esteemed as a food fish by many and is cultivated and distributed by the United States Fish Commissioners and by many State Commissioners. Our foreign-born citizens prize it highly, but at best it is poor food—exceedingly coarse and distasteful to a large percentage of a fish-eating community.

The Asiatic carp is the king of this species. It was known in Austria in 1227, in Germany and France in 1258. It came to Sweden in 1560, to Denmark in 1660 and was recognized in England in 1696 and in all these countries is considered as a staple fish food. They grow to a large size, attaining a length of 30 inches and a weight of 16 to 20 pounds. Several varieties have resulted from cultivation. There is the king, or mirror carp, so named on account of the extraordinarily large scales which run along the sides of the body in three or four rows, the rest of the body being bare.

When there is a row of large scales down the back it is called the “saddle carp.”

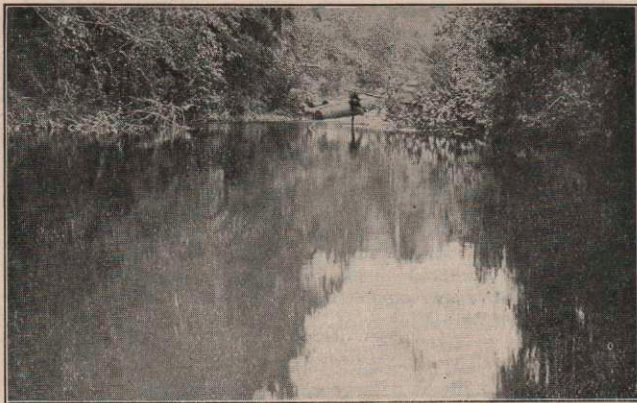
The “leather carp” has only a few, or no scales, and possesses a soft, thick skin. There are many names and varieties of this fish. The beautiful gold and silver fishes—the favorite of aquarium-keepers—and the graceful long-tailed and triple-tailed varieties from Japan have their origin in the carp and are of that family. The carp feeds largely upon vegetable food, and is held responsible by our sportsmen for having destroyed the wapato, formerly growing in all the overflowed lands of the lower rivers and which attracted water fowl by myriads. When the Columbia summer flood occurs the carp by thousands follow the advancing waters and they can be seen and heard tearing the grass and rooting out carrots, potatoes and other roots on the lowlands. Anybody can spear a sackful at this season.

CATFISH OR BULLHEAD

“Don't talk to me o' bacon fat
Or taters, coon or 'possum,
Fo' when I'se hooked a yaller cat
I'se got a meal to boss 'em.”

—The Darkey and the Catfish.

The catfish is somewhat like pate de foie gras or pickled olives. Those who do not very much like it detest it. Every small boy knows this fish, for his earliest angling experience is catchin' bullheads an' skinnin' 'em, and perhaps the excitement and experience in taking them off the hook, which he invariably swallows, atones for the lack of gameness, for one will always get one of the sharp spines or “horns” stuck into the hand and the wound is quite painful. This fish is found nearly everywhere that there is water and a muddy bottom and any old thing to feed upon, living or dead, being greedily swallowed by them. It is a good food fish. The Channel cat, or Blue cat is, doubtless, the choicest of the species. It reaches a weight of from 5 to 10 pounds. The great Mississippi cat is



WHERE NECANICUM LOITERS LEISURELY.

the largest of the family, and attains a weight of 150 pounds. The smaller fish, which is a duplicate in appearance of the larger species referred to, is the variety found on the Pacific Coast, and being a most prolific breeder the number of the kind is immense. A greater percentage of these fish reach maturity than any other fresh water fish that are not artificially propagated, the parent fish guarding their young as a hen does her first brood of chicks.

BLACK BASS

Micropterus-Salmoides—The large mouth black bass is second only to its cogener, the small mouthed species, as a game fish. It is equally well known to anglers, and its range is even greater. In all suitable waters it is everywhere abundant, in small lakes of considerable depth, cool water and with a bottom partly of mud and partly of sand and gravel. Where there is an abundance of aquatic plants is a favorite haunt of this most excellent fish. He is one of the gamiest of the fresh water species. He is built for a fighter, and never disappoints the angler. He has a legion of names, according to where he may be found; for instance, black bass, straw bass, green bass, lake bass, moss bass, grass bass, Oswego bass. His distinctive appellation and most expressive is, doubtless, "large-mouthed black bass" that locates him beyond any cavil or nonsense.

The flesh is always firm and sweet, as a result of the select character of the "food this our Caesar feeds upon." The "small mouth" is no doubt the more gamey of the two, but taken inch for inch, pound for pound, the large or small mouth black bass have no equals in the water for game and fighting qualities. If you have never taken a three or four-pounder from some of the cold waters of Minnesota, Wisconsin or Michigan, you have not yet "attained to the sublime degree" of the angler. Imagine yourself out upon one of the lakes in northern Minnesota, where these fish abound. Armed and equipped, as the law directs, with your seven or eight-ounce Henshell bass rod of split bamboo—Kentucky or Von Hoff reel—with 50 yards of silk line, a four-foot leader, No. 4 sproat hooks, a pail of little, green, hand-painted frogs and another of medium sized minnows; into the boat you go and pull out to a point where there is a gravel bar abruptly terminating in deep water, along the edge of the bar are lily pads and other aquatic plants. You make your cast, having a frog as bait. Before your bait strikes the water, in fact, when it is two feet above the surface, you see a splash and something sparkling and shining springs up to meet froggy and take him down below to quietly make a morning meal. You strike about the time he settles down for his breakfast and then there is something doing immediately and you have your work cut out for you, for, the next 15 or 20 minutes away he goes into the air three or four feet, running out 20 to 30 yards of line, doubles, turns, rushes and jumps repeatedly, but the constant, steady strain of the rod eventually tells on him and he tires of the one-sided deal and you gently lead him to the boatside where John nets him. Sometimes he objects strenuously to being "so taken in," and you have to coax him until he finally rests in the landing net. Put him on the scales at once, and he pulls down four to five pounds.

You gloat over him, admire him and well you may, for it's a fine fish and a capture you may be proud of, but you turn and resume your sport and only the legal limit causes you to quit, for John says: "One more and you have 25, and that's all for one day. Any more are worth \$5.00 each."

The writer has taken a six and one-half pound large mouth bass and has seen in Minnesota the mounted skin of one said to weigh eight pounds, but such size and weight are very rare. Bass multiply very rapidly. They make their nests in shallow water where they deposit their eggs, which require but 8 to 10 days to hatch. The young fish are very active soon after hatching and commence to feed immediately after hatching. When first hatched they are three-eighths of an inch long. When well fed grow to four inches the first year. In two years they will weigh a pound; the second year they spawn and are from 9 to 10 inches long.

The black bass has been known in our rivers for about 10 years, certain private ponds containing exotic fish having been swept away in freshets. One such bass lake was at Milwaukee.

The cat fish were set at large in the same way from Silver Lake, Wash., thence into Cowlitz river and so over the Columbia bottom.

Our large mouth bass is protected by law, and men who shoot Mongolian pheasants all year round and blow up trout pools with dynamite, hesitate to take bass out of season.

In our opinion this protection has been over-extended. No

fish in our waters, unless it be the catfish, is so well able to take care of number one as the bass. We earnestly advise removal of all protection by the next session of the legislature. Even if we reduce the bass by public sale to the scarcity of sturgeon, it will be for the advantage of trout and the preservation of the salmon, for no such predaceous creature existed in our waters before the coming of the bass.

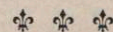
Great numbers of bass have been caught in the past two seasons on the Columbia and Willamette, but nearly all in the sluggish water of the sloughs. When the fish are better distributed, so that we may take them at such points as Milwaukee, Rock Island and the clear and rapid waters of the upper Willamette there will be better bass and greater pleasure in fishing for them.

STRIPED BASS

This fish was introduced a few years ago into the waters of the Pacific at or near San Francisco by the United States Fish Commission, the fry being taken from the Atlantic ocean in which waters it abounds. Since its introduction here it has rapidly increased in numbers, attaining a larger size than in the Atlantic. It varies in weight from 3 to 25 pounds, in some cases reaching 40 pounds. Large quantities of them are taken from the nets of the salmon fishermen. The species is plentiful along the entire Pacific coast. Is a fine food fish and highly appreciated by epicures.

rise; Tillamook Head dim and gray far southward; Saddle miles behind her; Chinook, Flavel, Scarborough Head, Point through a lake. It runs in early summer, mostly in July and August, and in streams adapted to its use runs in countless numbers.

The spiny lobster, locally called crawfish, but rightly of the crawfish.



HEAVY TRAVEL WESTWARD IN 1905

With the coming of the big Fair at Portland next year, the travel to the Northwest promises to be the heaviest yet experienced, and the Northern Pacific Railway, which follows closely the old trail of Lewis and Clark, whose wonderful trip we are to commemorate, hopes to do its share in making 1905 a banner year in the development of the country, as well as in its passenger business.

The interests of the people and of the Northern Pacific are identical. It is the desire of the company that its Eastern representatives shall thoroughly understand the needs and possibilities of the cities and states through which its line runs, and that everything possible shall be done to build up this country, and with this object in view, the passenger representatives and emigration agents of the company have recently made a tour over the entire main line and branches from St. Paul to Portland, and the result will undoubtedly be very much to the interest of the whole Pacific Northwest, as well as to the company they represent.

U. S. COMMISSIONER

NOTARY PUBLIC

GEO. T. PRATHER
Hood River, Oregon

Real Estate, Insurance and Financial Agent.

Improved and unimproved lands in large and small tracts in the famous Hood River Valley. Several large tracts of timber land for sale in Oregon and Washington. Also lots and residence property in the city of Hood River. I have been a resident for 25 years, and 20 years in real estate. Best references. Correspondence solicited.

Hood River is noted for fine homes, schools, churches, its healthful and agreeable climate, grand scenery, unfailing supply of good water, good transportation facilities, and its wonderful crops of fruit.

The Palouse Country's Resources

By M. E. LEWIS, Moscow, Idaho

This is One of the Richest Farming and Fruit-Growing Districts in the Pacific Northwest

Having been asked by your representative to tell the readers of the Lewis and Clark Journal how the Palouse country, and particularly that portion in the vicinity of Moscow, impresses an Iowa man. I gladly avail myself of the opportunity to do so. As every person judges and compares a new country with the one in which he has lived, it is but just to your readers to tell them that the last 25 years of my life have been spent in the real estate business in a territory embracing Northwestern Iowa, Southwestern Minnesota and Southeastern South Dakota, and so I must of necessity use the experience gained in those countries to estimate any new country.

The impressions on the first trip into this country, made during the month of May, were that it was a very rolling country, which in Iowa would invariably indicate a poor soil; and that the lands were very unevenly, I might say raggedly farmed. As to the hills and their soil, I found my judgment entirely wrong, and had to reverse it, for by personal examination of the soil, and the sight of vigorous fruit trees and abundant crops growing on the sides and tops of the steepest hills, quickly convinced me that the soil on the whole country was remarkably uniform, and all good. As to the ragged appearance of the farming, it was caused by a field of fine looking winter wheat lying along side of a second field of spring grain just showing green nicely, and a third field just seeded, and possibly a fourth field still in stubble, intended for summer fallowing. This looked very uneven at that time, still does, and I am convinced that it is not the wisest way to handle the land. It is a condition of things which prevails in every newly settled country, however, and will disappear when the following changes are brought about by emigration: First, getting more help on the land and cutting down the number of acres farmed by a man and team; second, rotating the crops with grasses and especially with clovers, instead of summer fallowing; third, keeping more stock, and fourth, feeding the produce of the farm on the place, and manuring the land, instead of hauling it off and impoverishing the soil.

Since the first trip I have seen two crops grown and harvested, and I must say I never saw such crops of grain before. Of course, there were good crops and poor crops, just as there are good farmers and poor farmers. Poor

farmers prove nothing, so far as the country is concerned, while good farmers show the possibilities of the soil under proper handling. A field of wheat, ready for the binder, that will yield 40 to 50 bushels per acre, over hilltops, sides and valleys; a similar field of oats that will thresh out 70 to 90 bushels per acre, or a field of barley, speltz, corn-wheat or flax equally good, is a grand sight, and would inspire the pen of a poet, and gladden the eye of any farmer, whether the field were his or not. I have seen many such. I have often been asked by Iowa people, "How is it possible to raise such a large yield of grain?" "How can it stand on an acre of ground?" and "Why can't we raise it in Iowa, where our soil is rich and our rainfall abundant?" I will tell you why you can not. If you could sow only a bushel to a bushel and a peck of wheat to the acre; if it would start slow, having cool, sunny days and cooler nights, so each grain would stool out and make from five to fifteen straws and grain heads; if you had a long growing season, without excessive winds or heat, and with cool nights; if your grain could take three to four weeks to ripen after first showing yellow at the bottom of the stalks, and with plenty of root moisture, so that every head would be long and well filled, and every kernel nearly twice as large as your wheat grains are; if, after being ripe, you had several weeks to harvest and thresh your crop, without fear of rain, wind or hail, you would then have the conditions prevailing here, and could raise equally large crops. The fault is not in the soil or rainfall, but in the climatic conditions prevailing in Iowa. The grain does not stool there; it is forced too rapidly to make good straw; it is ripened in three to five days, and blighted and shriveled in consequence, and it has to be cut on the green side to save it. Iowa is not a natural small grain country like this.

The Palouse country extends from the foothills on the east side to the sage brush lands on the west, the western line being very indefinite. The average annual rainfall runs from 30 to 35 inches at the foothills, to less than 10 inches on the west side. The surface soil along the foothill country is rich and black and deep. In the sage brush country it is yellowish brown, and is apt to be shallow in depth. Between these two extremes are found all the different gradations in rainfall, color and depth of soil. From these observations the conclusions naturally come that a heavy rainfall produces a heavy vegetation, the decay of which blackens the soil, while a light rainfall does not produce vegetation enough to darken the soil. The reverse of this rule would also be true, and would be a safe guide for a homeseeker to follow, viz.: A black soil indicates, first, a heavy rainfall; second, a safe crop country, and third, a country where a great diversity of crops can be raised. While a light colored soil indicates, first, a light rainfall; second, a rather uncertain crop country, and third, a country where crops suitable to semi-arid regions only can be raised, unless the land can be irrigated. The foregoing naturally suggests the next question from the Iowa man, which is, "Why does not your heavy rainfall wash the rich soil from your hillsides into the valleys?" The answer is that our rains come in a slow, drizzling form, and are taken in



Farm Scientifically

And buy a 5, 10, 20 or 40 acre irrigated farm in the famous Yakima Valley at Prosser, Wash., where you can make from 50% to 100% annually upon investment by raising fruit, hops, vegetables and alfalfa.

**Terms, one-fifth Cash
Balance annual payments**

WHEAT LANDS in the Yakima Wheat belt near Prosser at from \$7 to \$20 an acre. Homestead Relinquishments for sale at from \$200 to \$700 cash.

ADDRESS

L. D. LAPE, PROSSER, WASH.

by the loamy surface soil, and the porous clay subsoil, as fast as it falls, and does not come in heavy, dashing thunder storms, such as they often have east. A single inch of rain will require from one to two days to fall here, while in Iowa one to two hours' time will often see as much precipitated, and with disastrous effect.

The prudent homeseeker, in looking for a farm in this country, will not only seek one where farming is successful as it is carried on at present, but one where the new method of farming as outlined above, can be carried on with equal success. Grain farming exclusively is too exhausting and wasteful of the stored riches of the soil to be carried on permanently. It would wear out the richest soil in the world in the end. Hence the far-sighted investor will look to the other possibilities of the soil and climate before buying. For such the eastern edge of

come an increase in the value of lands many fold, and that now is the best time to buy.

The climatic conditions are much more agreeable than in Iowa. The changes in temperature are not nearly so great, nor so sudden. From May 1, 1903, to the present the extreme range in temperature has been from 11 degrees to 92 degrees above zero. There is also an absence of hard winds which is very restful to the average Iowa man. The freedom from thunder storms, hail storms and cyclones, with their attendant horrors, is one of the nicest features of this climate.

Among the cities of the Palouse country, Moscow is the metropolis. Nicely located, compactly built, filled with home-like homes, having 10 churches, good schools and society, and two competing railroads, it offers more advantages to the homeseeker than any other point. Aside

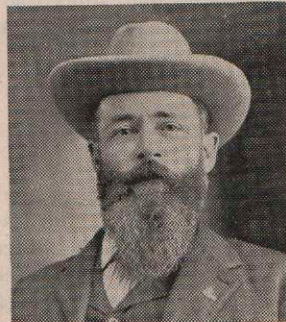


WHEAT SACKED AND READY FOR SHIPMENT

the Palouse country has much to offer. Aside from the grains, which reach their best yields here, tame grasses and clovers do remarkably well. This allows of all kinds of stock raising, cattle, horses, sheep and hogs. The latter are entirely free from cholera here. The long open seasons allow stock to be raised with but little winter feeding or shelter. The high prices paid for butter, eggs, poultry, etc., at all seasons, make this a profitable business. If not satisfied with the results of this method of farming, the fortunate owner of lands here can set his farm to fruits, which will, if properly taken care of, make the lands yield yearly incomes greater than the present price of the land. The fruits raised here with perfect success are apples, pears, plums, cherries, prunes, and all kinds of small fruits. All vegetables also do well and yield enormously. From this it naturally follows that the country in that part of the Palouse of which Moscow is the metropolis is one of greatly varied agricultural resources; that these resources have scarcely been touched as yet; that it will grow and improve in farming methods and income for years to come; that with this growth will

from this Moscow is the seat of the Idaho State University and Agricultural College, where students are educated to the bachelors or masters degrees in all the liberal arts and sciences.

5,000 acres irrigated land



for sale near Prosser, Wash., under the new extension of the Sunnyside Canal in the famous Yakima valley in tracts and on terms to suit buyer.

C. G. BAKER

REAL ESTATE & IMMIGRATION AGENT

Representing also large tracts of best wheat lands, both raw and improved, to be found in the state, ranging in price from \$5.00 to \$15.00 per acre.

PROSSER, WASH.

Write for descriptive circular

PRE-EXPOSITION RATES TO PORTLAND

The Centennial Exposition and the city in which it holds will be the Mecca of many thousands of travelers before the gates of the Fair are officially opened June 1. Beginning March 1, all the transcontinental railroads put in effect what is known as a "colonist rate" to Pacific Coast points from Missouri River territory and Chicago.

The fare to the coast will be \$25.00 from Missouri River points and \$33 from Chicago. These tickets will be sold every day from March 1 to May 15. Also, it is expected a special homeseekers' round trip rate will be sold the first and third Tuesdays in each month from February 1 till June.

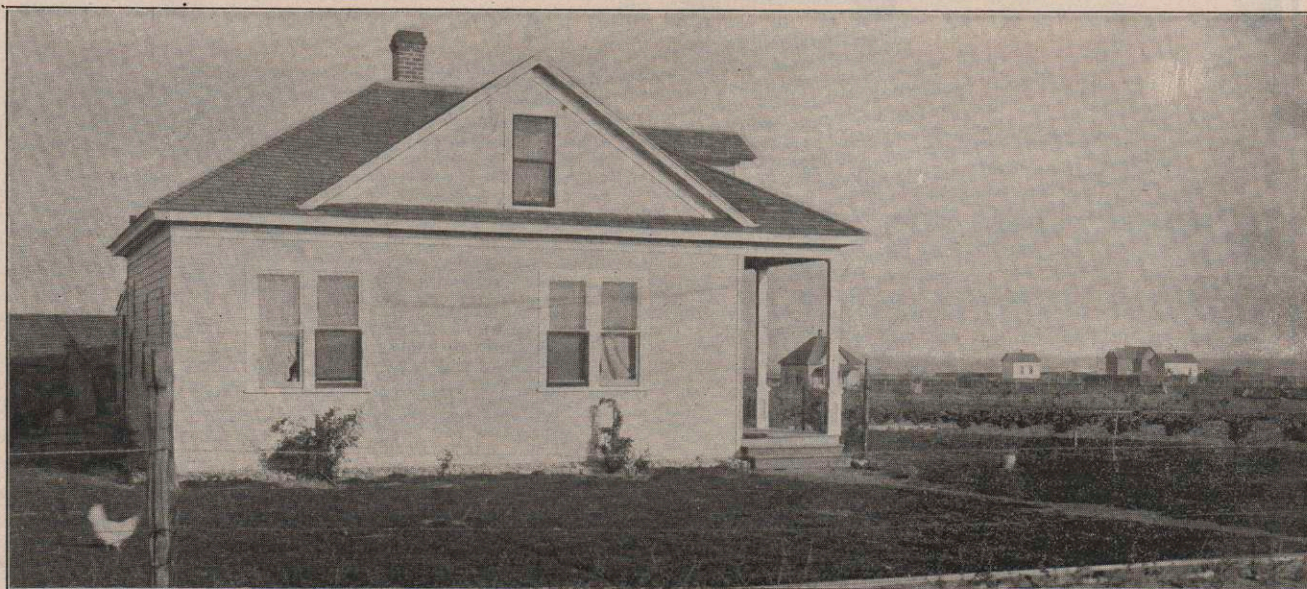
This will be a benefit in many ways to people who will want to come to the coast early in the spring season. The colonist rate is made especially for the benefit of settlers, and means that thousands will take advantage of it to look over, or locate in, various sections of the country. These rates are good until May 15. Beginning in June, 1905, there will be at least four occasions in each month of the period of the Centennial when tickets may be pur-

shines there on the 40-mile beach while east of the Coast Range, in the Valley, it is cloudy and wet and foggy. But, better than all, in and about the bay are virgin streams for trout, and salmon catching on the bay under the tutelage of one of the willing neighborhood guides is an experience worth possessing. Splendid fishing for cod and bass from the rocky coast and out at sea. Living is cheap and accommodations are first-class. The Southern Pacific Company and the Corvallis & Eastern in conjunction sell, twice a week, special low rate tickets to Newport, "home of the rock-oyster," and the greatest family of shell fish of any place on earth excepting the coast of Spain. Write to Ed. Stone, Albany, Oregon, for a little entertaining booklet on the curiosities of the "moss and water agate coast" of Oregon, and other things.



KENNEWICK'S FAMOUS GARDENS

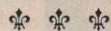
It is seldom that a place of only two years old can lay claim to *fame* on any grounds, but a notable exception to this is the new irrigation district at Kennewick, Yakima



A KENNEWICK FARM HOME.

chased for Portland at the low rate of \$45 round trip from all common points on the Missouri River territory, and \$50 from Chicago. Even lower rates than this are expected to prevail east of the Missouri River.

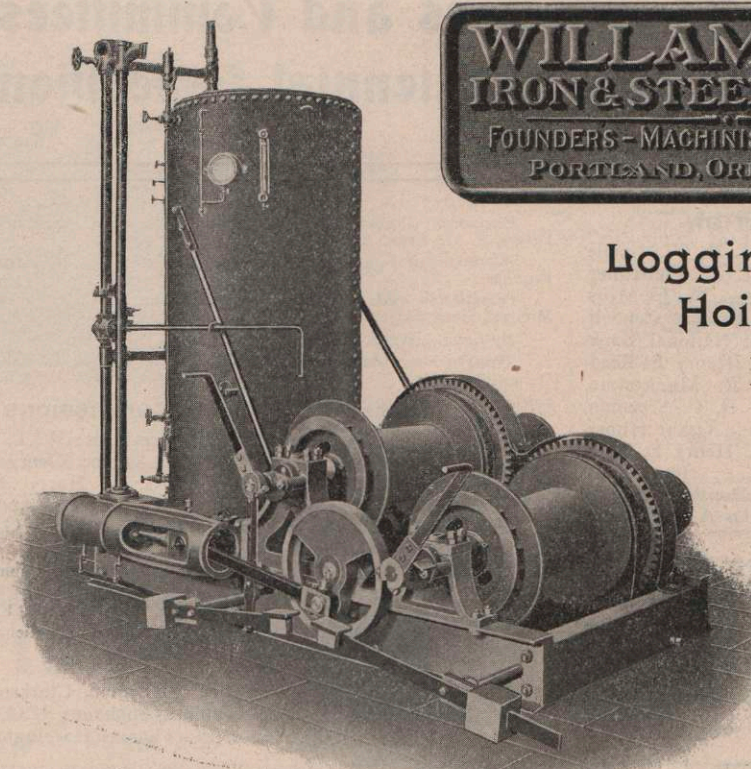
Many personally conducted excursion tours are being arranged in leading cities of the East by parties. Under such arrangement a car of people going for a pleasure trip may have a more highly enjoyable time than if traveling as individuals, and any railroad representative will be glad to arrange the details if applied to.



ATTRACTIONS AT YAQUINA BAY

Yaquina Bay on the middle Oregon coast, is recognized as one of the best all-round winter resorts in the Pacific Northwest. In and about the quaint seaport village of Newport are many things to commend to those seeking rest and recuperation and for sportsmen and hunters after recreation with rod and gun. Yaquina is a short day's trip from Portland and often the sun of spring-like days

County, Washington. One of the finest irrigation canals in the United States was completed there in April, 1903. Today the country is famous for its early strawberries, cantaloupes, watermelons and all good things that one is so hungry for in the earliest spring. It is already nicknamed "The Land of the April Strawberries." Many do not realize the full import of the saying. It means that while the famous Hood River berries are still in blossom, Kennewick is enjoying the fruit. It means \$7.00 a crate for this same fruit, while the growers of less fortunate localities are selling four weeks later for \$1.50 per crate. It means no competition in the market and a demand from all points, that the entire capacity of Kennewick gardens can never satisfy. A more substantial and prosperous district would be hard to find. Although less than two years old, the town boasts of forty-eight business houses, and not one business for sale. Beautiful homes costing thousands of dollars on every hand; schools, churches and seven different organizations of a social nature, including two musical societies. Its future certainly seems bright in the extreme.



WILLAMETTE
IRON & STEEL WORKS.
 FOUNDERS - MACHINISTS - ENGINEERS
 PORTLAND, OREGON, U.S.A.

Logging Engines
Hoisting Engines
Electric Hoists
Belted Hoists
Hand Power Hoists
Derriek Irons

We make a specialty of

Contractors'
Machinery

BREEDERS ADD TO PREMIUM LIST

The National Livestock Association which met recently in Chicago is deeply interested in the livestock show to be held in connection with the Centennial and, in harmony with several breeders' associations of the Middle West, will come to the show next autumn at the Exposition with several carloads of blooded stock, determined to capture the prizes. Richard Scott, member of the Oregon State Commission, who was delegated special livestock commissioner by President Goode, attended the annual convention in Chicago and presented the matter of the association supplementing the premiums to be hung up by the Exposition Company. The result was instant success. Mr. Scott found that many breeders were fully posted on the Exposition and readily agreed to add something more to the prize list. Within a few minutes after

his talk, breeders of short-horn cattle had subscribed \$2500. Pledges also came in from other members, and Mr. Scott conservatively estimated that no less than \$15,000 will be received from the different breeders. This will make the livestock premium fund \$55,000, which insures general participation. Accommodations in the shape of stalls and sheds for a great display will be erected.

Already numerous inquiries have been received from livestock men in the State of Iowa who propose coming out with prize herds. This attitude of the breeders on the eastern side of the Rockies indicates intense interest is being taken in this feature. They have not yet recovered from the fact that a Portland breeder, Charles E. Ladd, carried off the gold medal for short-horn cattle against all America at the St. Louis show. The Ladd's success with their Oregon cows excites rivalry of owners of other blooded herds.

KENNEWICK IRRIGATED LAND

*is already famous for producing the earliest crops of Berries,
Fruit, Vegetables and Alfalfa Hay in the Northwest*

Kennewick Climate

means 300 days of Sunshine every year

\$35.00 an acre

*is Kennewick Land Co.'s price
for irrigated land under Kennewick Canal*

Our fine illustrated book about Kennewick is yours for the asking Write to

KENNEWICK LAND CO., Kennewick, Yakima County, Washington

Officers, State Commissions and Committees of the Lewis and Clark Centennial Exposition

LEWIS AND CLARK CORPORATION

President and Director General.....H. W. Goode
First Vice-President.....I. N. Fleischner
Second Vice-President.....A. L. Mills
Third Vice-President.....Samuel Connell
Treasurer.....First National Bank
Secretary.....Henry E. Reed
Auditor.....W. R. Mackenzie
Secretary to the President.....D. C. Freeman
Director of Works.....Oskar Huber
Director of Exploitation.....Henry E. Reed
Director of Architecture.....Ion Lewis
Director of Exhibits.....Henry E. Dosch
Director of Concessions and Admissions.....John A. Wakefield

BOARD OF DIRECTORS

J. C. Ainsworth, George W. Bates, A. Bush, J. M. Church, A. H. Devers, F. Dresser, B. Van Dusen, W. D. Fenton, Charles E. Ladd, Robert Livingstone, Dr. K. A. J. Mackenzie, Rufus Mallory, S. M. Mears, George T. Myers, L. Allen Lewis, James H. Raley, George W. Riddle, Adolph Wolfe, T. B. Wilcox, H. Wittenberg, Paul Wessinger, the President, and Vice-Presidents.

Executive Committee.—H. W. Goode, Chairman, J. C. Ainsworth, W. D. Fenton, I. N. Fleischner, A. L. Mills, Paul Wessinger, T. B. Wilcox.

Grounds and Buildings.—Paul Wessinger, Chairman, J. C. Ainsworth, Geo. W. Bates, Samuel Connell, C. Allen Lewis, H. W. Goode.

Exhibits and Transportation.—T. B. Wilcox, Chairman, I. N. Fleischner, A. H. Devers, Chas. E. Ladd, Geo. T. Meyers, J. M. Church, B. Van Dusen, H. W. Goode.

Concessions and Admissions.—A. L. Mills, Chairman, W. D. Fenton, Samuel Connell, F. Dresser, S. M. Mears, H. W. Goode.

Legislation and Judiciary.—W. D. Fenton, Chairman, A. L. Mills, A. Bush, Rufus Mallory, James H. Raley, H. W. Goode.

Music and Special Attractions.—J. C. Ainsworth, Chairman, Paul Wessinger, Dr. K. A. J. Mackenzie, Adolph Wolfe, S. M. Mears, H. W. Goode.

Exploitation and Publicity.—I. N. Fleischner, Chairman, T. B. Wilcox, Robt. Livingstone, Herman Wittenberg, Geo. W. Riddle, H. W. Goode.

UNITED STATES GOVERNMENT BOARD

Wallace H. Hills, Chairman.....Treasury Department
William H. Michael.....Department of State
John C. Scofield.....War Department
Cecil Clay.....Department of Justice
B. F. Peters.....Navy Department
Edward M. Dawson.....Department of the Interior
S. R. Burch.....Department of Agriculture
F. W. True.....

.....Smithsonian Institution and National Museum
Charles H. Hastings.....Library of Congress
Williams C. Fox.....Bureau of the American Republics
Merritt O. Chance.....Postoffice Department
William M. Geddes.....Secretary and Disbursing Officer

Executive Committee.—Wallace H. Hills, J. C. Schofield, B. F. Peters, F. W. True, E. M. Dawson.

Allotment of Funds and Space.—B. F. Peters, E. M. Dawson, S. R. Burch.

Installation and Decoration.—F. W. True, J. C. Schofield, W. H. Michael, Cecil Clay, Frank H. Hitchcock.

By-Laws.—W. C. Fox, Cecil Clay.

Transportation and Freight.—Michael Schofield, R. P. Faulkner.

LEWIS AND CLARK STATE COMMISSIONS

Oregon.—Jefferson Meyers, Salem, President; W. E. Thomas, Portland, Vice-President; J. H. Albert, Salem; George Conser, Heppner; Frank Williams, Ashland; G. Y. Harry, Portland; F. A. Spencer, Portland; Dr. Dav Raffety, Portland; J. C. Flanders, Portland; Richard Scott, Milwaukie; F. G. Young, Eugene; Edmond C. Giltner, Secretary.

Ways and Means.—F. A. Spencer, Chairman, W. E. Thomas, G. Y. Harry, F. G. Young, Richard Scott.

Auditing.—Richard Scott, Chairman, J. C. Flanders, W. E. Thomas.

Grounds and Buildings.—J. H. Albert, Chairman; Richard Scott, W. E. Thomas, Dr. Dav Raffety, J. C. Flanders.

Washington.—G. W. R. Peaslee, Chairman, Clarkston; F. J. Parker, Walla Walla; W. W. Tolman, Spokane; J. G. Megler, Brookfield; R. P. Thomas, Anacortes; Thomas Harrington, Buckley.

California.—Governor George C. Pardee, Sacramento.

Idaho.—Governor J. T. Morrison, Boise; J. E. Steele, Iona; R. W. McBride, Salmon; Mrs. H. W. Mansfield, Nampa; Dr. Harold J. Read, Wallace; Martin J. Wessels, Kendrick; C. B. Hurtt, Executive Commissioner, Boise.

Montana.—Lee Mantle, Butte, Chairman; Paul McCormick, Secretary, Billings; W. G. Conrad, Great Falls; H. L. Frank, Butte; Martin Maginnis, Helena; B. F. White, Dillon; F. A. Heinze, Butte; William Scallon, Butte; C. W. Hoffman, Bozeman; J. H. Rice, Fort Benton; Konrad Kohrs, Deer Lodge; D. R. Peeler, Kalispell; C. J. McNamara, Big Sandy; T. L. Greenough, Missoula; Dan McDonald, Butte.

Utah.—Governor Heber M. Wells, Salt Lake; H. B. Clawson, Salt Lake; George P. Holman, Salt Lake; A. B. Lewis, Milford; F. J. Kiesel, Ogden.

North Dakota.—Governor Frank White, H. L. Holmes, David Bartlett, R. J. Turner, W. N. Steele, all of Bismarck.

Missouri.—Governor A. M. Dockery, Jefferson City.

Massachusetts.—(Board of Managers), George Harris, President, Amherst; Mrs. Sarah C. Sears, Vice-President, Boston; James M. Perkins, Secretary, Boston; Mrs. May Alden Ward, Boston; Thomas B. Fitzpatrick, Boston; Wilson H. Fairbank, Warren; George E. Gay, Director of Educational Department.

New York.—Frederick R. Greene, Fredonia, president; vice-president, Dr. Samuel J. Ward, Albany; treasurer, H. T. Williams, Buffalo; P. H. Brown, William M. King, Henry Altman, Clarence Luce, New York City.

British Columbia.—R. E. Gosnell, Victoria.

COME TO KENNEWICK

The California of the Northwest

All Fruits ripen from 15 to 20 days earlier than in any other section of the Northwest

First crop of Strawberries yielded \$400 to the acre this year. Apricot trees yielded \$22.50 per tree. A good living in a delightful climate on 2½ acres. I have some most attractive places for sale in 2½, 5, 10, 20 and 40 acre tracts on easy terms. Write for descriptive list.

H. C. MITCHAM, Kennewick, Wash.

HOMESTEADS

in Wheat Lands are nearly all gone. But you can buy homestead relinquishments, with some improvements for \$300 to \$1200. You then file on the land, have no taxes to pay for 5 to 7 years, and by residing on same acquire title to 160 acres of good wheat land.

WHERE CAN YOU DO BETTER?

I live upon my homestead in the heart of this region. Write me for full information.

J. B. EARLY, MABTON, WASH.



THE BUTLER

EUROPEAN

Seattle's Leading Hotel



300 ROOMS
ALL HAVING
LONG DISTANCE
TELEPHONES

Epicurean Resort of
the Pacific Coast

W. G. KING, MANAGER

Oregon Farm Lands

We have a large list of
desirable farms and
timber land for sale

Correspondence Solicited.

PALMER BROS.,

417-418 OREGONIAN BLDG.
PORTLAND, ORE.

**DEVERS
GOLDEN
WEST**

SPICES,
COFFEE, TEA,
BAKING POWDER,
FLAVORING EXTRACTS
Absolute Purity, Finest Flavor,
Greatest Strength, Reasonable Prices.
CLOSSET & DEVERS
PORTLAND, OREGON.

Investments in Eastern Oregon Pay

We offer choice loans on Grande Ronde Valley Farms netting 7% interest. City loans net 8% interest. We collect and remit interest free of charge. We also have some fine buys in Real Estate. References: Any commercial agency or any bank or business house in La Grande, Oregon. Write us for information.

LaGrande Investment Co., 1110 Adams Ave., LaGrande

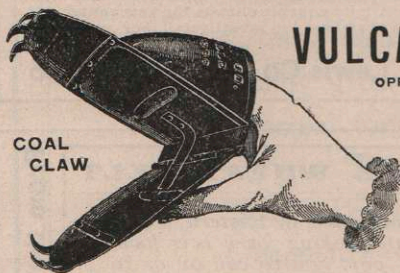
HOTEL S MEEDE

American Plan

Strictly First Class

W. M. Renshaw, Proprietor

EUGENE, OREGON



COAL
CLAW

VULCAN COAL CO.

OPPOSITE POST OFFICE

Wholesale and Retail
Dealers

Best House, Steam and
Blacksmith Coal

Foundry & Smelter Coke

329 Burnside Street. Phone Main 2776. Portland, Ore.

FRED SECHTEM JOHN SCHLENK

The Quelle Cafe & Grill Room

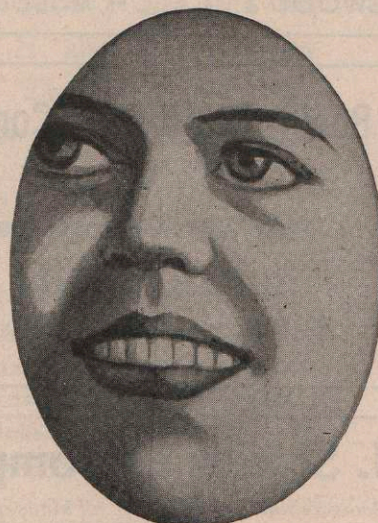
Crawfish, Oysters and Shell Fish



MERCHANTS' LUNCH

COR. SIXTH AND STARK STS., PORTLAND, OREGON. TELEPHONE 919

WITH TEETH WE EAT



JUST A MOMENT WITH Dr. B. E. Wright Dental Office

342½ Washington Street, Corner 7th.

Phone Main 2119

Office Hours 8 a. m. to 9 p. m.

Sundays 10 a. m. to 12 m.

White's New Hotel

at corner of Stevens and Sprague
SPOKANE, WASHINGTON

By untiring effort and honest endeavor to please we have met with the public's appreciation. OUR HOTEL has every convenience that appeals to the public. Comfortably furnished rooms, with hot and cold water in each. The central location of the hotel makes it convenient to all business parts of the city. Our rates are from 50c to \$2.00

Our Cafe and Restaurant is located on the GROUND FLOOR. Lunch counters, dining room and special boxes are all given the same prompt and courteous service. We serve anything that your appetite demands. No long waits for orders. Free bus to and from depots. **JOS. A. WHITE, PROP.**

The Best Investment

in the Northwest is in
WHEAT LANDS
Adams County, Wash.

I have 40,000 acres of farm lands for sale in Adams and Douglas counties at the following prices:

Wild Lands, per acre \$4 to \$12
Improved Lands, per acre \$10 to \$20

Land that I can sell you at \$20 per acre, near Lind, Wash., paid interest on \$60 per acre this year. I predict that much of this land will advance 100% in value during next five years. Now is the time to buy. Write to

M. L. Schermerhorn, Lind, Wash.



HOTEL MOSCOW

G. W. GALE, PROPRIETOR

New Management Thoroughly Renovated
First Class in Every Particular
Free Sample Rooms



MOSCOW, IDAHO

Hotel Commercial

MOSCOW, IDAHO

European Plan. Best Meals at reasonable prices. Free Sample Rooms. Free Bus to all trains.

Your comfort is our first consideration

D. H. ROBINSON
PROPRIETOR

EVERYBODY HAS HEARD OF The Famous Palouse Country

of North Idaho and Eastern Washington—the most productive country on earth—the healthiest country on earth

MOSCOW, IDAHO is situated in the center of the very best part of the Palouse country; is the county seat of Latah County, is the seat of the State University and has a population of 5,000. If you intend making a change of location, it will pay you to investigate before buying elsewhere. We have all kinds of Farm Lands, City Property, Business Opportunities, &c. Write us for descriptive matter and list of prices.

SPOTSWOOD & VEATCH, MOSCOW, IDA.

MOSCOW | METROPOLIS OF THE PALOUSE COUNTRY | MOSCOW

Home of Idaho University and Agricultural College.
Home of 5,000 people and ten churches.

GATEWAY CITY FOR: The Potlatch Country; The Camas and Nez Perce Prairie Country; The White Pine Timber Country; and The Clearwater Mining Country.

We have a Rolling Prairie Country with a Rich black surface soil, with deep porous clay sub-soil; a sufficient rainfall for all crops; Large and never failing crops of all small grains; Large crops of clover, timothy, alfalfa and all tame grasses; Abundant crops of apples, pears, plums, cherries, and all small fruits; Good soft well water and many springs; A mild equable climate the year round.

It is worth a visit or a postal card to investigate. For particular description, write to

The C. & M. E. Lewis Co., Moscow, Idaho

Idaho Realty, Title & Trust Company

MOSCOW, IDAHO

have for sale an attractive list of both small and large farms in the vicinity of Moscow, Idaho. Send postal for our descriptive list.

From the Wheat Belt

FROM THE WHEAT BELT

If you are interested in Eastern Washington, or are looking for a new location, it will pay you to call on or to address us, as we are located here and have been for several years past and are perfectly familiar with this part of the country—its resources & opportunities

ZENT & ZENT, Law and Real Estate, Lind, Wn.

From the Wheat Belt

M. J. Shields & Company

Growers and Importers of all kinds of

Grass & Field Seeds

Dry ground, deep-rooting grass seeds that we will guarantee to grow on ground that will not produce cereals or any other kind of grass. Will make crop of hay and pasture all seasons of the year. Address

M. J. SHIELDS & CO., MOSCOW, IDAHO

Meadow Brook Stock Farm

Scotch and Scotch Topped Shorthorn Cattle
BERKSHIRE & POLAND CHINA SWINE

The imported Scotch Bull Lord Derby 157119 and Oregon Chief 147092 at head of herd. A few choice pedigreed animals for sale at all times.

BAYARD T. BYRNS, Prop., Moscow, Idaho

MOSCOW

The Heart

of the Great
Palouse Country

The Home

of
University of Idaho
and
State Agricultural College

Metropolis

of
Northern Idaho

THE PALOUSE COUNTRY is a Rolling Prairie country of rich deep black soil, with a porous clay sub-soil. It is a land of delightful climate, pure living water and sufficient rain. ¶ It is celebrated for its abundant crops of wheat and all small grains; its fine apples and other fruits; its abundant crops of timothy, clover and dry land alfalfa; its thoroughbred livestock, of which its horses, cattle, sheep and hogs are of the very best and most careful breeding. In short it may be accurately said that the country immediately surrounding Moscow represents the most strictly diversified farming district to be found in the Northwest. ¶ MOSCOW, a rapidly growing up-to-date city of over 5000 people and the principal town of the Palouse Country, is also the gateway city to *The Famous Potlatch Country, The Camas and Nez Perce Prairie, The White Pine Timber Country, and The Clearwater Mining District.*

We Would Say to the Homeseeker:

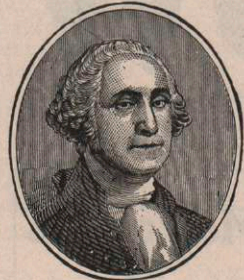
¶ To the FARMER who would increase his holdings; To the FARMER who would escape severe winters and torrid summers and live where good crops are a certainty and markets unsurpassed; To the BUSINESS MAN seeking a favorable opening where educational advantages are good, and beautiful homes and good health abound, we extend to you a cordial welcome

For further information, send for illustrated booklet to

Secretary of the Business Men's Association
MOSCOW, IDAHO

The Order of Washington of Portland, Oregon

It is the leading Western
Fraternal Society



Its plans are
progressive
Benefits paid
to the living
member
Old Liners
"knocked out"
and death-bed
assessment
concerns
"put on the run"

Men and Women
permitted to
carry equal
Benefits.
One Lodge Room,
Splendid
Ritualistic
Effects
Live Meetings
in all
live cities

Life Insurance furnished in
sums of \$250 to \$2000
Sick and Accident benefits
furnished in sums of \$6
to \$10 per week.

Life Certificates carry paid up value after five years.
Life Certificates carry cash borrowing features after ten years.
Life Certificates pay one fourth for the loss of hand, foot or eye. One
half for total disability.
The Order of Washington wants good, live, hustling Men and Women
deputies in California, Oregon, Washington, Idaho, Montana, Utah, Colo-
rado, Arizona, Nevada, Texas, Pennsylvania, Georgia, Florida and Alabama.

For Particulars, Address

J. L. Mitchell, Supreme Secretary

612 Marquam Building, Portland, Oregon

"AS THE CROW FLIES"

The shortest line between Minneapolis,
St. Paul and Chicago is



the route of the famous

North-Western Limited

"The Train for Comfort"

every night in the year.

Before starting on a trip—no matter where—write for
interesting information about comfortable traveling.

H. L. SISLER
132 THIRD ST.
PORTLAND, ORE.

T. W. TEASDALE
GENERAL PASS. AGT.
ST. PAUL, MINN.

Missouri Pacific Railway

WORLD'S FAIR ROUTE



WORLD'S FAIR ROUTE

From Denver, Colorado Springs and Pueblo
To Kansas City, St. Louis, Memphis, Chicago, and

ALL POINTS EAST

Direct Line to Hot Springs, Arkansas.

Pullman Sleeping and Compartment Cars.

Service and Equipment Second to None.

Dining Cars, Meals a la Carte.

For Detailed Information, call on or address

W. C. McBRIDE, Gen'l Agent, 124 Third St., Portland, Ore.

FIRST NATIONAL BANK

of Portland, Oregon

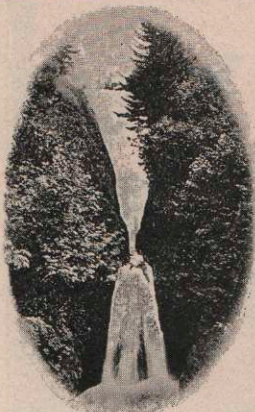
Oldest National Bank
on the Pacific Coast

Capital, Surplus and Undivided Profits, \$1,500,000

Deposits, \$8,500,000

A. L. MILLS, PRESIDENT
J. W. NEWKIRK, CASHIER

W. C. ALVORD, ASST. CASHIER
B. F. STEVENS, 2D ASST. CASHIER



BRIDAL VEIL FALLS

L. C. PALMER, PRESIDENT.

J. M. LEITER, SECRETARY.

J. S. BRADLEY, TREAS. AND GEN. MGR

Bridal Veil Lumbering Co.

MANUFACTURERS OF

Oregon Fir and Larch Lumber

Bridal Veil, Oregon

FREE LAND IN OREGON

in the richest grain, fruit and stock section in the world. Thousands of acres of land at actual cost of irrigation. Deed direct from State of Oregon. **WRITE TO-DAY.** BOOKLET and MAP FREE. Deschutes Irrigation and Power Company, 610-11-12 McKay Building, Portland, Oregon.

TILLAMOOK COUNTY lies on the northern coast of Oregon. It contains the richest dairying sections in the state. **C. MILLS is the live Real Estate Agent** who does most of the business of the county. Be sure you write him before buying elsewhere in Oregon. He is strictly reliable and is highly recommended to the JOURNAL.

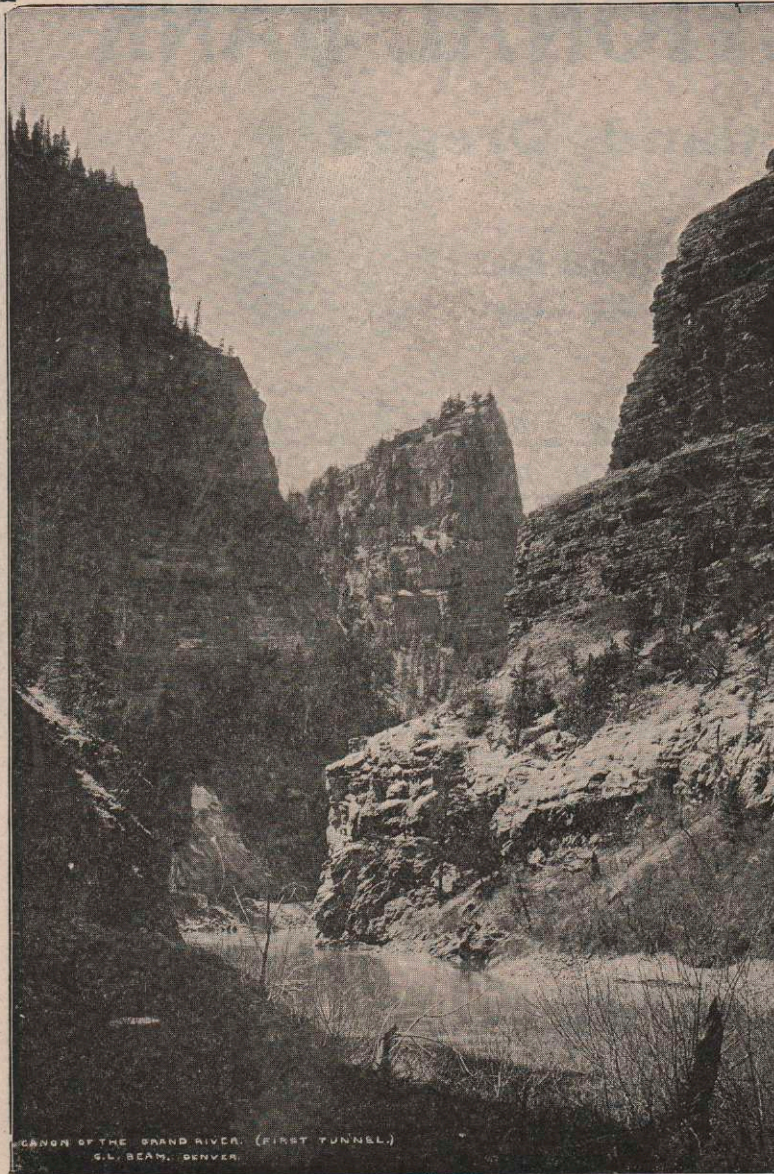
MONTHLY SAVINGS

Guaranteed against all loss. Loans on homes
payable in definite number of monthly payments

Equitable Savings & Loan Association

240 STARK STREET, PORTLAND, ORE.

THE DENVER & RIO GRANDE SYSTEM



CANYON OF THE GRAND RIVER. (FIRST TUNNEL.)
G.L. BEAM, DENVER.

Most Delightful Way

to Cross the Continent

Through Salt Lake City,
Leadville, Pueblo,
Colorado Springs
and Denver



UNSURPASSED

are the Scenic Attractions
and the Service

The CANYON of THE GRAND

I am going to paint a picture with a pencil of my own:
I shall have no hand to help me, I shall paint it all alone:
Of! I fancy it before me and my hopeful heart grows faint
As I contemplate the grandeur of the picture I would paint.

When I rhyme about the river, the laughing limpid stream,
Whose ripples seem to shiver as they glide and glow and gleam,
Of the waves that beat the boulders that are strewn upon the strand,
You will recognize the river in the Canyon of the Grand.

When I write about the mountains with their heads so high and hoar,
Of the cliffs and craggy canyons where the waters rush and roar,
When I speak about the walls that rise so high on either hand,
You will recognize this rockwork in the Canyon of the Grand.

God was good to make the mountains, the valleys and the hills,
Put the rose upon the cactus, the ripple on the rills;
But if I had all the words of all the worlds at my command,
I couldn't paint a picture of the Canyon of the Grand.

—CY. WARMAN

M. J. ROCHE, Traveling Passenger Agent

W. C. McBRIDE, General Agent

124 Third Street, Portland, Oregon

We are Now Prepared to Furnish

Water **POWER** Electric

IN ANY QUANTITY

We would suggest to those contemplating embarking in the manufacturing business to call on us before placing their orders for machinery. We feel satisfied it will mean a large saving, not only in the way of first cost of installation of the plant, but in small cost of operation, small amount of space required and great convenience.

Portland General Electric Co.

HICKS-CHATTEN ENGRAVING CO.



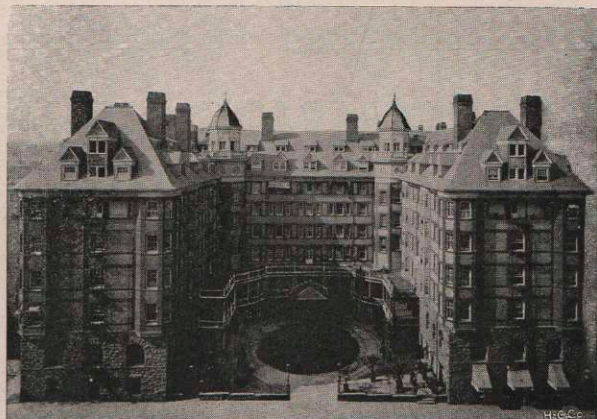
245 1/2 Morrison St.
PORTLAND, OREGON.



*PhotoProcess
Engraving...*

*For All
Printing
Purposes.*

*Your First Order will
Demonstrate, and Your future
orders will Prove that we are
the Leaders in the manufacture
of Printing Plates.*



The Portland

PORTLAND, OREGON



H. C. BOWERS

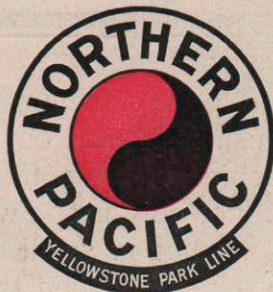
COST ONE MILLION DOLLARS

AMERICAN AND EUROPEAN PLAN

HEADQUARTERS FOR TOURISTS
AND COMMERCIAL TRAVELERS

TICKETS TO THE
Lewis and Clark Centennial Exposition
AT PORTLAND, OREGON IN 1905
at Greatly Reduced Rates

will be on Sale via the



Affording Opportun-
ity to Ride on the

NORTH COAST LIMITED

One of the 3 Daily
Trans- Continentals

A Trip through the Yellowstone National Park
may be included at a very small additional expense.

Send six cents for **Wonderland** containing full information of the country traversed by the N. P. Ry.

A. D. CHARLTON, A. G. P. A.
Portland, Oregon

A. M. CLELAND, G. P. A.
St. Paul, Minn.

FARMING LANDS IN OREGON

**The Settler's
Opportunity**

The ideal spot for a home, a mild equable
climate and fertile soil, producing Fruits,
Vegetables, Grains and Grasses in profusion,
can be found in Oregon in the

**WILLAMETTE, UMPQUA AND
ROGUE RIVER VALLEY**

on the line of the

SOUTHERN PACIFIC COMPANY

Write for literature descriptive of the climate, productions and opportunities to

W. E. COMAN, General Passenger Agent, **Portland, Ore.**