



VALLEY OF THE COLUMBIA RIVER

OF THE HABITABLE REGIONS OF THE WORLD, THE MOST PRODUCTIVE AND THE LEAST SETTLED.

THE Columbia River, with its navigable tributaries, aggregating 2132 miles, all converging at Portland, contributes two important factors to the commercial welfare of the city. It affords natural and cheap means of communication between Portland and the rich interior, and it is the medium of access for deep-draft vessels from the sea to Portland's wharves. Equally important is the second factor as affecting gradients for the railroad systems which terminate at Portland. All hauls by rail for raw materials from the centers of production in the Pacific Northwest to the shipping center at Portland are down grade, and the railroad lines terminating here have the benefit of water-level hauls. No other seaport on the Pacific Coast reaches the rich producing sections of its interior tributary country without overcoming heavy gradients, involving great expense in railroad operation. No other commercial city on the Pacific coast is so admirably situated at the end of a great trade route—the work of Nature, and not of man. No other Pacific Coast city has the sea in front of it, the producing areas immediately behind it, and a natural highway to carry the products to its doors. No other Pacific Coast city is at once a gateway of commerce and a center of production and distribution.

Nearly every cubic foot of water that takes its rise in Eastern and Southern Washington, Western Idaho, part of British Columbia and nearly all of Oregon flows into the Columbia and past Portland to the Pacific Ocean. Of all who have studied the Columbia River Basin and its economic possibilities, none have bestowed higher praise upon it than the United States engineers who have been entrusted with the work of improving navigation. As long ago as 1827 Captain Charles F. Powell reported to the Chief of Engineers: "The Columbia is the great river of the Pacific Coast. In volume and commercial value it is second only to the Mississippi. Its banks are more stable, its waters are clearer, its ice blockades are much less in duration than the great waterway of the East. Unlike the Mississippi, the Columbia seeks the ocean in a line parallel to trade channels, and not at right angles to them."

In 1900 Captain William W. Harts reported:

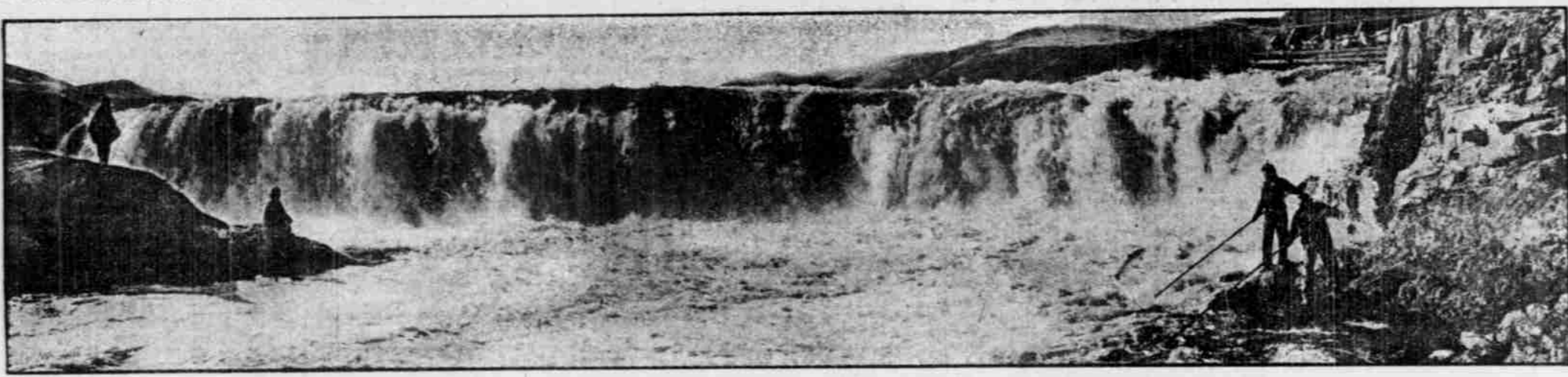
This river, with its tributaries, drains an enormous area, estimated to contain 245,000 square miles, 182,000 miles of which lie east of the Cascade Mountains. This latter area is about equal to the combined areas of all the New England States, including also New York, Pennsylvania, New Jersey and Maryland. The drainage of the Columbia River stands second in the United States in point of size and importance.

Elsewhere will be found a statement of the navigable waters forming the main stream of the Columbia and its tributaries. It will be noticed that the greater part of the river in the State of Washington—the 2132 miles between Marcus and the foot of Priest Rapids—is, with the exception of the 88-mile reach from the Okanogan to Wenatchee, either navigable only under favorable conditions or navigable only at great risk. On the other hand, the 400-mile reach from the foot of Priest Rapids to the Pacific Ocean is navigable with the exception of the 12 miles between The Dalles and Celilo. The improvement of the river at this point would open 210 miles of water between The Dalles and Priest Rapids, and improvement of the Snake between its mouth and Riparia would make navigation easy to Lewiston, Idaho, 136 miles inland from the mouth of the Snake. It is with these two projects that the producers of the Inland Empire are now chiefly concerned. For with free navigation from the foot of Priest Rapids, on the Columbia, and Lewiston, on the Snake, the Inland Empire would have ample outlet to the sea for its products. If the Dalles-Celilo project is undertaken without delay and pushed under the contract system, as was the Cascade Locks in the final stages of the work, it will be possible for steamboats to make the run from Lewiston to Portland before the 1906 fair is opened.

Portland's Down-Grade Trade Route.

The law of Nature which makes water run down hill applies with dominating force to the heavy transportation of a productive country. Trade routes follow the line of least resistance—the down-hill track. With this principle in view, let the reader examine closely the map of the drainage area of the great Columbia River and trace up-stream from Portland the lines of the watercourse. Nearest at hand is the Willamette. Its drainage area includes all the region between the Cascade and Coast Ranges northward from the Callipoia Mountains, and it scarcely needs to be told that the traffic of this wide country flows down stream to Portland. Then follow the Columbia, nearly 300 miles east along the Oregon border, thence northward, east and north through the food-producing fields of Washington; thence north into British Columbia. Now follow up the Snake River, which is really a southern branch of the Columbia, to its sources near the Idaho-Wyoming border, upward of 3000 miles. Then trace the streams falling into the Columbia and the Snake and observe what a wide area they cover. Add to these vast basins the district of the Lower Columbia between Portland and the sea, and the coast regions in Oregon and Washington, which are nearer to the Columbia River than to any other general port. This is a brief outline of commercial Oregon, of which Portland is the chief city. It includes the whole of the State of Oregon, save a few districts to the south and southwest commercially allied to California; the whole of Southwestern, Southeastern and a goodly portion of Eastern Washington, a trade relationship to British Columbia, and to nearly the whole of Idaho. All the heavier and much of the lighter products of this vast region must seek an outlet through the gateway of Oregon by down-hill route to the sea, or follow some more difficult, and therefore more costly, course of transport.

One cannot scan a map of the Pacific Northwest without noting the prodigious fact that all the water-level lines of transport, covering the greater productive districts of the Northwest, meet at the junction of the Columbia and Willamette Rivers—at Portland. Herein is the secret of Portland's original location, and the explanation of her commercial power and continuous growth. She has ambitious rivals on Puget Sound, but Nature in her most formidable shape is in alliance with Portland. Every point of a freight carried directly to the Columbia River Basin and Puget Sound must be lifted



CELILO FALLS, 203 MILES FROM THE MOUTH OF THE COLUMBIA RIVER.

Copyright, 1901, by Benj. A. Gifford, The Dalles.



COLUMBIA RIVER 26 MILES EAST OF PORTLAND, SHOWING PILLARS OF HERCULES AND CAPE HORN.

Photo by E. C. Blackwood.

over the Cascade Mountain range—2500 feet above sea level. Between Portland and the Columbia interior it is a level road. To those who understand the primary principle of transportation, even those who have thought upon the difference in force required to walk up hill and on a level, the significance of this fact needs no exposition. It is a fact not to be put aside nor to be overcome by devices. It is final and absolute. It establishes forever the level route down the Columbia as an imperial highway to the sea. It attaches the Columbia River Basin to commercial Oregon by a law which disregards political lines. It brings the commercial products of the great interior

basin region—whose vast area and wealth have won for it the high but not unflattering name of "Inland Empire"—to a deep-water port where they meet the commercial productions of the Willamette Basin. In the day of relatively small things this conjunction created near the mouth of the Willamette an important commercial town. No man of judgment doubts that the great future will build here one of the world's greater marts. It would take more pages than there are columns available for this general survey to detail the present and potential wealth of this vast country. It is a region so richly endowed in unnumbered ways that a mere catalogue of its produc-

tions, of kinds capable of expansion to commercial proportions, would fill a volume. The present, when the country is not yet fairly beyond its pioneer era, when not one acre in five of available land is under the plow, before any general use of irrigation, and when only crude products are sought to be developed, is a very large one, even in a commercial sense; and the future, when increased population, wider and cheaper systems of transport and higher agricultural art have done their work, no man is bold enough or wise enough to foretell. If it were the purpose of this sketch to go into particulars, a record of present commercial production might be set forth sur-

prising to many who fancy themselves already familiar with Oregon's commercial field. They who may be interested in these respects will find on other pages of this issue matter of commercial as well as domestic significance. The tables which exhibit annual output are worth the study of all who wish to know the immediate conditions of the country or to speculate upon its potentialities and the future of its commercial life. The Producer Directly Interested. In some respects the development of the Inland Empire by an all-water trade route on the Columbia is analogous to the opening of Western New York by the Erie Canal. The rich food-producing lands of Eastern Oregon and Washington and Idaho are partly cut off from the Pacific Ocean by the obstructions between The Dalles and Celilo, just as Western New York was almost wholly cut off from the Atlantic seaboard. When the Erie Canal was projected the railroad was not thought of, and the only possibility of traffic, except by freight wagon, was a canal. New York built the canal to take the place of the lumbering wagons, and then followed the six-track railway to parallel and supplement the canal and the Hudson estuary. In Oregon light-draft steamboats and portages were built to take the place of the freight wagon

of pioneer times. Then came the railroad to supplement the light steamboat and the portage. Now it is proposed to supplement the railroad by a revival of water navigation. Trade routes follow the lines of least resistance—gravity, if it be obtainable; if not, the minimum lift over grades. The line of least resistance from the food-producing fields of Eastern Oregon, Eastern Washington and Idaho to the Pacific Ocean is the Columbia River, "the one natural pass," as Senator Dolph once expressed it. In the 600 miles of mountain range running through Oregon and Washington. The effect of the opening of the Columbia would be larger population in the interior country; increased production, so that the ships coming to the ports of the Northwest shall be assured of return cargoes; increased consumption of the commodities of other countries, so that ships may come to our ports loaded instead of in ballast, as they now frequently do. The completion of the Erie Canal revolutionized the trade of the United States. Prior to 1825 many, if not a majority, of the vessels discharging at the Atlantic seaboard returned in ballast. The canal made an open door between the East and the West, and thereafter every vessel discharging at New York was certain of a return cargo. The situation in the Pacific Northwest today is the reverse of the situation in New York three-quarters of a century ago. New York then had the population to buy its imports, but the field that produced the cargoes for export was practically inaccessible. The Pacific Northwest is able today to furnish the cargoes for export, but has not the population that would be large consumers of imports. The Erie Canal united the farm and the shipping port for New York. The Columbia River open would do the same for the Northwest and give the producer and the consumer the double advantage of rail and water communication.

No one is more interested than the consumer in the selection of the natural trade route for this region, the opening of the Columbia to navigation. The Erie Canal furnishes an object-lesson on this point. Before the canal was dug wheat was quoted at \$1 a bushel at New York and 50 cents a bushel at Buffalo. The difference in price was the cost of transportation. When the canal was dug the freight cost from Western New York to tidewater at New York City fell from \$1 a bushel to 40 cents, and the farmer got the other 60 cents. So it will be with the farmer of the Inland Empire when the Columbia is an open river. The principal beneficiary will be the producer of the Palouse country, the Big Bend, and of Lewiston, Walla Walla, The Dalles, Pendleton and Yakima. The opening of the Columbia will regulate rates, not affect cities. The railroad that lifts their trains over the Cascades to Puget Sound will get just as much wheat as there is a market for at Puget Sound, and which they are willing to haul to tidewater at the rate fixed by the gravity system in Columbia Gap. If the steamboat finds the wheat rate from Lewiston to Portland 70 cents a bushel, and lowers it to 7 cents, the other 7 cents will go into the pocket of the farmer. The question is therefore one of lessening cost of transportation to the farmer, or to present it in another view, one of increasing the price which the farmer receives for his product.

Navigable Reaches of the Columbia.

The navigation of the Columbia River begins at its very source, Upper Columbia Lake, which is situated between the foothills of the Rocky Mountains and the Purcell Range, 30 or 35 miles north of the 50th parallel, and very close to the 116th degree of west longitude. Fifty miles south of Upper Columbia Lake is Fort Steele, from which point steamers run on the Kootenai River to Jennings, Mont. Communication between Golden, on the main line of the Canadian Pacific, and Fort Steele, is by boat, train and stage. The distance between Jennings and Golden is 250 miles. From Donald, 17 miles west of Golden, the river flows along the foothills of the Rocky Mountains in a general northwesterly direction to Boat Encampment, just above the 54th parallel. Here the Cance River, coming from the Cascade Range of British Columbia's great river, the Fraser, adds its waters to the Columbia's mighty flow. Here also the Columbia makes an abrupt turn and flows almost due south to Revelstoke, on the Canadian Pacific.

The Columbia, in its grand detour around the northern extremity of the Selkirk, describes a huge inverted letter "V," with the apex pointing to the north-west, and traverses about 200 miles of British territory. At Donald the river is 2500 feet above sea level, and at Revelstoke the altitude is 1475 feet, a fall of 1025 feet in 200 miles, or over five feet to the mile. At Arrowhead, 26 miles below Revelstoke, the river broadens into a series of lakes known as the Arrow Lakes, which vary from half a mile to three miles in width. Here the river runs through a majestic canyon whose walls bear a striking resemblance to the cliffs of the Columbia below the Cascades. The river between Arrowhead, B. C., and Marcus, Wash., a distance of 157 miles, is navigable, though steamers have run on the 25-mile stretch between Arrowhead and Revelstoke.

The Columbia, in its course from the boundary to the mouth of the Okanogan, is a truly wonderful river. In this stretch, the 11 miles between Marcus and Ripley's Landing are not navigable, the 56 miles between Ripley's Landing and Spokane Rapids are navigable under favorable conditions, and the 109 miles from Spokane Rapids to the Okanogan are navigable at great risk. The river crosses the international boundary line between Washington and Idaho, and after flowing through a mountainous country for 106 miles in a direction a little west of south, it enters the great plain supposed to have been occupied by an inland sea for a long period subsequent to the lava flows which cut off the main drainage through the Cascade Mountains. Immediately upon entering this basin it trends directly to the west line, along the northern border of the great plain for a distance of 100 miles, when it strikes the foot of the hills of the Cascade Mountains, and is turned to the south along the western confines of that plain. This is one of the two big bends of the river, and that portion of the great plain inclosed between its two arms is widely known as the Big Bend country. It is remarkable for the fertility of its soil, through the country the river is new geologically. It is still rapidly carving its way through the un-