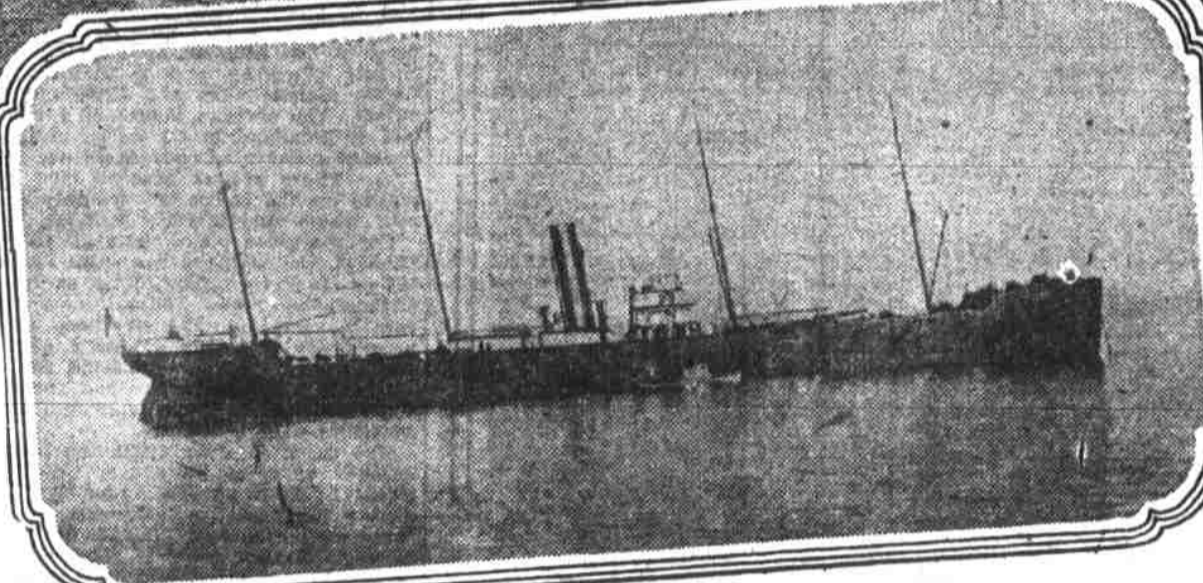
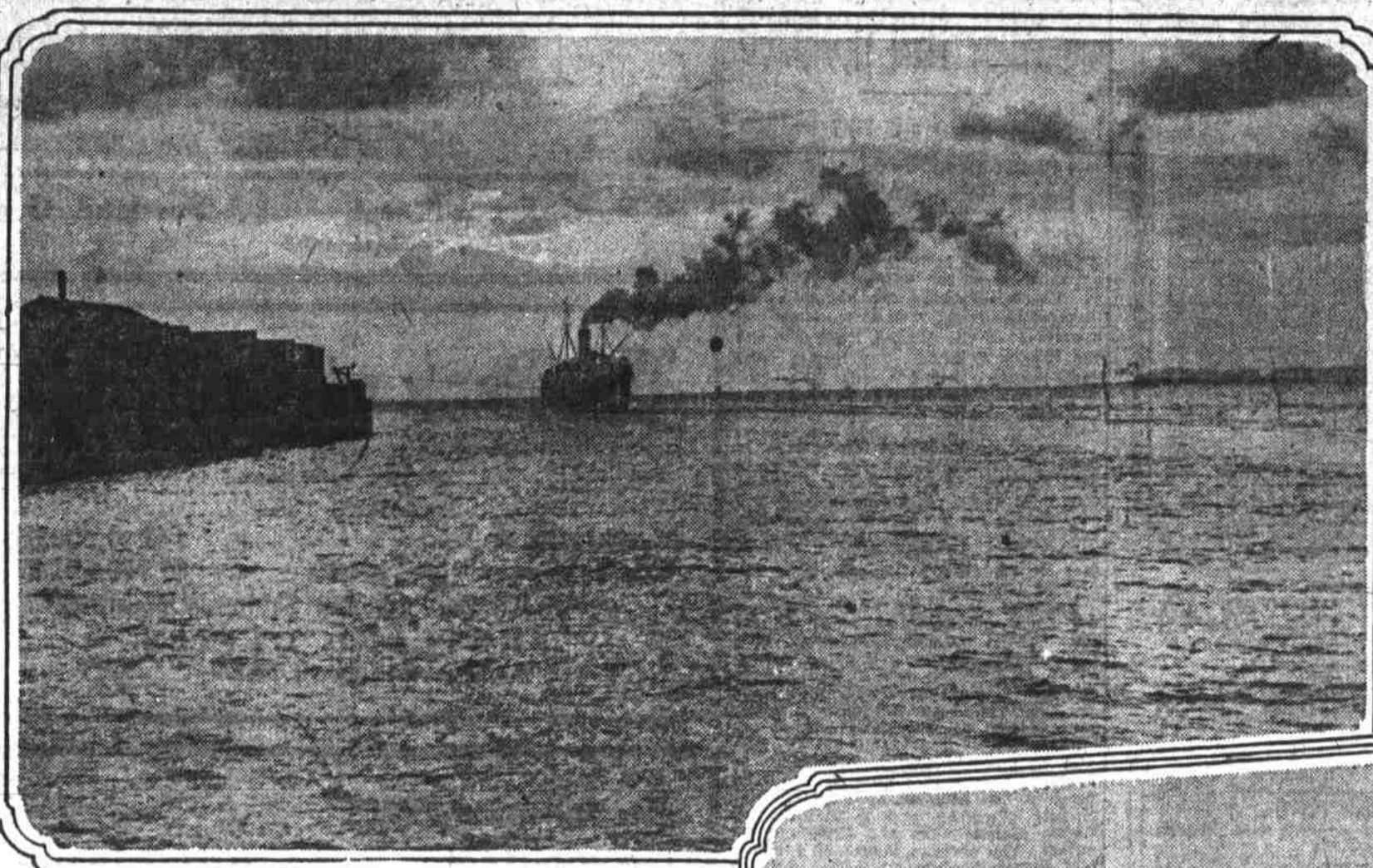


A FORTY-FOOT CHANNEL OVER THE BAR OF THE COLUMBIA



ADMIT THE WORLD'S COMMERCE TO PORTS ALONG GREAT RIVER BY REMOVING BARRIER

Ports of Columbia Committee Makes Marked Progress in Execution of Its Plans to Make Columbia River One of the Big Waterways of Trade.

By Marshall N. Dana.

THE mighty Columbia bursts asunder two mountain ranges in its race to the sea, but it has a bar at its mouth. In its current mingle the streams of two nations, but its forward sweep has not dislodged the commerce checking obstruction.

The grain that might grow on the plains it drains could feed the millions, but people to plant the crops will wait the opening of the door to the world's markets.

The food from the farms of the lands it waters might make high cost of living a vague memory, but not until the flood flows free into the deeps of the sea.

On the slopes of its watershed stand titanic forests for the building of factories, cities and ships, but of value in futures only until the way of water transportation is clear.

Powerful dredges must tear through the sand and silt; rock built jetties must narrow the breadth of the river's mouth and correspondingly deepen its channel.

Modern commerce carriers must hear the news of developing resources and aggressive improvement policy and prepare to use the facilities of deepened channel and public water terminals.

Factories must be built on the banks of the river to transform raw materials into finished products and thus enhance value.

The unused millions of water horsepower must be transformed into electrical current for the operation of industries.

Locks and dams must sacrifice the wild beauty of the upper Columbia Cascades in the interest of navigation and electric power.

Where lands lack nature's provision for sufficient water their fertility must be artificially aided by irrigation.

Problems of production present themselves wherever, in all the region, utilization of resources and cultivation of land is proposed; the educational agencies of the states must systematically demonstrate solutions of these problems.

Transportation by water is not sufficient without transportation by rail and by wagon roads, and the three must be efficiently related.

All of these things have proper part in creating a great harbor, in inducing a great agricultural and industrial development, in weaving a complete transportation system, in permanently establishing a country. They are the inseparable units of progress.

Benefit is to Whole Community.

Men must be had who can grasp in all its immensity the correlated scheme that must be evolved, who can outline the work to be done and furnish the plan of procedure, and all without taint of selfishness except it be the generous selfishness which practically approaches that where the majority benefits most the individual prospers more greatly.

Perhaps all of the preceding seem but high sounding phrases. They represent the ideal—but an ideal that must ultimately be realized because the reason for the realization exists.

If a manufacturer goes into business he builds his plant big enough to produce in greatest volume and most economically his particular commodity. He regulates volume of output by the demand. The same measure must apply to the plan of the Columbia district because its permanency depends on the industry and prosperity of its people.

And the realization of the work to be done is becoming a part of the present. How else would there have sprung into existence almost overnight an organization larger than any other of its kind known, dedicated to a single unit of betterment—the removal of the bar at the mouth of the river!

As suggested development, docks, industry, wait on the deepening of the channel at the river's mouth. It will be of small avail to create a 30 foot channel from Portland to the sea unless there be a correspondingly deep passage over the bar. The channel will nowhere be better than its shallowest portion. Of what advantage will it be to create at Portland or Astoria great water terminals unless there be at the mouth of the river such exit and entrance for modern steamships as their great draft warrants?

Amount of Federal Aid Sought.

The Ports of Columbia committee has definitely programmed its campaign. It asks congress to appropriate \$1,500,000 for a dredge equal to the wonderful "Levinthal" of the port of Liverpool; to appropriate \$2,000,000 instead of \$30,000 first recommended for the north jetty at the mouth of the Columbia and to place the jetty work on a continuing contract basis. It was the representations made by a special committee of the Ports of Columbia committee that induced the Port Commissioners of Portland and Astoria to set aside a total of \$500,000 in aid of the government's work at the mouth of the river, so that work on the jetty might not cease between the time when the present appropriation should be exhausted and the next appropriation become available.

The committee believes in the effectiveness of dredging. The Chinook's work on the bar during 50 double shift working days in the summer of 1912 furnished a demonstration of its value. Across the bar a distance of nearly a

PORT IMPROVEMENTS AT COOS BAY CERTAIN

Dredge to Begin Work Soon on Bar at Harbor's Entrance.

MARSHFIELD, Or., Dec. 30.—The prospects for substantial and lasting improvement of the harbor of Coos Bay are better now than ever before. During the past year important steps have been taken to better the harbor, which is regarded as the most valuable natural resource of the Coos Bay country.

The commissioners of the Port of Coos Bay floated a \$300,000 bond issue. Of this amount at least \$200,000 is to be expended on a project to make a channel 200 feet wide and 25 feet deep at mean lower low tide from the C. A. Smith mill, at the head of the bay, to the ocean. To carry out this plan the port entered into contract with the Puget Sound Dredging & Bridge Building company and that firm is now at work in the bay. The dredge was brought here by the company and is carrying out the project under the supervision of the port engineer.

The government engineers announce that the government dredge Oregon, which was formerly used here and which is now in Yaquina bay, will be returned to Coos Bay early in February. If there are no government funds available for the operation of this dredge the port commission will likely furnish money to keep the dredge in operation and assist the work inside the bay.

The port commission has levied the annual port tax which will bring sufficient money to pay the interest on the bonds and leave about \$9000 for current expenses.

The improvement of the bar will be taken up by the government, congress several years ago having appropriated \$350,000 for a bar dredge and money for its maintenance. There have been long delays in receiving the bar dredge at Coos Bay but it is now promised that it will arrive shortly after the first of the year. The dredge built for Coos Bay is the Colonne E. Michels. While the dredge at means of improving the bar is welcomed it has always been held locally that what is needed is the repair of the north jetty at the entrance of the harbor. This jetty is practically demolished. The people wanted the jetty repaired and the dredge as a supplement and means of improvement. Now that the dredge is to come every effort of the Coos Bay interests is being directed toward the improvement of the jetty which was included in one of the projects recommended by the government engineers to congress. Committees will be sent from this locality to Washington to urge the rebuilding of the jetty.

Improvements have also been made on the Coquille river, the other ocean outlet of Coos county. Work has been done by the Port of Coquille which has jurisdiction on the upper river and for the purpose of improving the bar and the lower waters of the river the Port of Bandon has been organized. The port organization will be taken through the courts to make certain of its validity and then the port commission expects to levy tax and float a bond issue to raise money for harbor work.

During the past year rocks have been blasted out of the lower river and dredging done and other improvements made which better the condition of the harbor for the increasing traffic.

Upper river. Uninterrupted traffic will ply both up and down from Portland, the great manufacturing and distributing center. The reclamation of the Deschutes basin, the canalization of the upper Columbia and the Snake will be accomplished, the products of the vast country will be brought by boat and train to the seaboard and the imports of the region will be carried back by the same means. A greater civilization than the world has yet seen may be established, and a more prosperous people



Top, left to right—Looking towards the mouth of the Columbia river at Astoria; rocky gorge of the Columbia river, near The Dalles. Center, left to right—Bar dredge Chinook; Dr. Alfred Kinney of Astoria, chairman of the Ports of the Columbia committee. Bottom—Map showing immense area drained by the Columbia.

RESUMPTION OF NAVIGATION ON UPPER COLUMBIA ASSURED

Completion of Cello Canal Will Remove Natural Barrier and Render Stream Navigable Without Interruption From Its Mouth to Priest Rapids.

THE history of navigation on the Columbia river above The Dalles is a story of endeavor, which starting ambitiously in the west when the Argonauts searched the ways for gold, grew less with passing decades until about a year ago the last line of regular steamers finally tied up and the upper reach of the great stream was deserted, its surface unbroken save by the ripples of its own current, the sharp prow of an occasional launch, or the broad bow of sluggish ferry boat.

But there are reasons for this condition, and among them four big ones—a railroad on the north shore, a railroad on the south shore, long stretches of fertile, but undeveloped country, and lastly the greatest barrier of them all, Cello falls and the rapids below them. The last reason, soon will cease to exist. With the completion of the Cello canal, now under construction, the obstruction which has always dammed the stream to navigation will have been removed. The river will be open and water craft will be free to operate from its mouth to Priest Rapids.

Beginning of River Traffic.

From the date of its discovery in May of 1792, to 1850, navigation of the Columbia river was confined to the stream below the Cascades and most of it was between Portland and the sea. Sailing vessels held undisputed sway until 1836 when the Beaver, the first steam vessel to ply the current, entered the Columbia. From that date on traffic on the lower river grew.

The invasion of the upper river began in 1851 when the Jason P. Flint, pined for one year between the Cascades and The Dalles. Business was not good and it returned to the lower river in 1852.

In 1853 and '57, respectively, the steamers Mary and Hassalo were built at the Cascades and the steamer Idaho at the upper Cascades in 1860. They

were carried by them during 1864, between Cello and Lewiston.

And the fare and rates were not small either. For instance a charge of \$90 per ton for freight from Portland to Lewiston was made and the fare was \$22. To Umatilla freights cost \$45 per ton and the fare was \$10.

But at this point navigation began to decline. In June of '66 the Okanogan was taken over Cello falls to the middle river and in June of 1870 two others followed.

Cascade Locks Begun.

In 1873 the government began the work of improving the upper river by removing dangerous rocks (a work only recently resumed) and the construction of the Cascade Locks was started.

Although several of the older boats were rebuilt and renamed and three or four new ones were built, navigation of the upper Columbia practically ceased in 1882 when the O. R. & N. completed its railroad line from Wallula to Portland.

The company managed to secure enough freight to keep things going for a year or so, but the completion of the North Bank railroad along the Columbia, in 1896 had its effect and finally these boats were compelled to tie up and the upper Columbia since then has been virtually abandoned.

The Cello canal is nearing completion, and when it is opened, a continuous waterway will obtain from Priest Rapids to the sea, and the upper Columbia will finally come into its own.

Some Population Comparisons.

In 1860 Portland had a population of 2876, Chicago 109,260, St. Louis 161,773, and San Francisco 54,802. At that date San Francisco was twenty times as large as Portland. Today it is not quite twice as large.

The Oregon grape was designated as the state flower by the legislature of 1899.

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