

THE SEAPORTS
A Comparison of Inland With
Coast Harbors.

SOME COMMON ERRORS EXPOSED

The Enormous Cost of Maintaining
Deep Water Navigation
to Portland.

It is the purpose to publish the article written by Mr. Archibald A. Schenck, entitled "The Commercial Seaports of the Northwest," in full, commencing with the portion following, and continuing an installment from day to day until its entire publication shall have been completed:

The world has been and is being enormously taxed every year through a few mistaken ideas concerning commercial seaports. One of these is that a commercial port is merely a shipping point, and that relative costs of transportation decide its growth and supremacy. The higher idea of fitness for being a great mart of trade, a great commercial exchange, is overlooked, and the only thing considered is, how far inland can ocean vessels be induced to come. All that railroads have sought in many cases has been the nearest port at which they may get rid of their tonnage.

A second error is in assuming that an ocean vessel when on inland rivers or canals furnishes the same cheap form of transportation, or approximately so, that it does on the free ocean.

A third error is in assuming that because large ports exist inland, they are not expensive errors, and may be duplicated.

A fourth error is in assuming that such large inland seaports do exist, as is evident in rivalry with a well defined natural harbor, of distinct harbor features, further down the river.

These general statements outline the examination proposed in this paper. Although the paper treats primarily of commercial seaports of the Pacific Northwest, in reply to the views of advocates of inland seaports there, it necessarily includes a somewhat extended examination of the seaports of the world generally.

It is noted that those whose views this paper is intended to meet, are personally interested in the ports which such one argues in favor of. One is interested by his own professional residence and by that of his relatives expected at his expense; another is an expert employed by a railway which has cast its fortunes with, and expended its resources upon an inland terminal; another is an expert for a proposed system of ship canals, with personal interest in the subject of discussion as it should be. The most complete work of gathering statistics, of studying material developments, and of intense and prolonged thought upon such subjects, whether manufacturing, commercial, agricultural, or of investment, is generally found among those deeply and personally interested. In any paper or treatise, sufficient credit for intelligence and independent judgment may be given the reader. All that can be done by a writer is to devote time and labor, such as each reader cannot give, to gathering facts and collating ideas in compact form.

The advocates of an inland location have somewhat blinded their readers to the question at issue by citing a large number of intended ports that have failed of great success, both inland and coast, creating the impression by the hasty recital of them that all the failures were not due to being inland. All the small ports between Baltimore and New Orleans, lying entirely outside the great lines of tonnage movement, are called on to confuse the real issue. Some ports as yet without transcontinental railways, or even local railways, are cited to prove the necessity of inland location. Mere riverside deepwater points, absolutely without distinctive harbor or terminal features, are called on to fortify the inland theory.

For those readers to whom the recommendation of a manager of transportation lines is preferred to a detail examination of the case, we quote the statement made to the writer by the vice-president of one of the greatest trans-Atlantic lines. He says: "In our opinion it is undesirable, except in the case of a very old and convenient inland port, to send a steamer inland for cargo."

The seaport question in the Pacific Northwest appears to be a triangular fight between Puget Sound (Tacoma and Seattle), Portland, at the head of navigation of the Willamette river (not of the Columbia river), and Astoria, at the mouth of the Columbia river. Tacoma claims that she has all she needs in her railway line and in her water route to the ocean. Portland has a railway, but is not satisfied with her inland water route. Astoria has the ocean at hand, but asks for a railway and for an open Columbia river for light draught vessels.

Portland bases her claim of future supremacy upon her being inland nearer the producer and at the head of navigation, on her claimed position as a radial centre of railways, and on the growth she has already secured. Astoria has a harbor that the United States government has secured an entrance to, by an expenditure of \$2,200,000 upon the jetty at the mouth of the Columbia. This harbor is magnificent in size and character; of ample working room for vessels of the largest size; of great length and concentration of water frontage; and with a great number of

Waterways penetrating the land. The harbor is well sheltered by the peculiar "hipper-jawed," or land-locked entrance that also furnishes a speedy and safe entrance for vessels to quiet water. The entrance has a great under-water precipice in the ocean opposite, sufficient to serve for ages as a dumping ground for scoured material. It has a great river, furnishing the excess of outflow over tidal inflow that is almost essential to the permanent success of a jetty system. The harbor, although so near the coast, has fresh water to prevent the teredo and to remove barnacles. The entrance is over 3,000 feet broad, and over 25 feet deep at mean lowest low water. There is no other harbor in the world anywhere nearly equal in advantages to this harbor. Portland, to accommodate and retain four shippers of wheat in Portland (the wheat fleet of 1891-2 was consigned by only four firms), now says to the United States government, and to the people of the Columbia basin, that this harbor must not be utilized; that in preference to securing an open river for light draught vessels to the interior, or in preference to awaiting railway extension to this harbor, the government must at once divide river and harbor appropriations, and give much of them to constructing an artificial deep water channel to the warehouses of these four firms in Portland.

In order to retain these four shippers, Portland has already secured the expenditure by government of \$927,333.49 in attempting to secure a 29-foot channel. This gives:

Interest on expenditures..... \$50,000
Minimum yearly expense of maintenance..... 45,000
\$105,000

Or over 50 cents per ton on the wheat shipped by the grain fleet in 1891-2. This 50 cents would carry all the wheat by rail from Portland to the mouth of the Columbia, without noting the actual transportation costs by that route. If we add to the above amount the actual cost to the Union Pacific Company for towage, pilotage, etc., on the grain fleet, or \$114,000, we have \$219,000, or more than \$1 per ton on the wheat, additional to the expenses of ships' crews, demurrage, etc. This is not a business-like operation. The wheat could have been lightered to Astoria and placed on vessel there for less than this \$219,000. Thus the \$105,000 is partly wasted and is partly a direct subsidy to the four shippers of wheat for conducting this operation at one place rather than another. There is no gain to the people at large, as would be the case if facilities were provided not already existing, or practicable without cost to the government, even with this governmental subsidy. Portland is securing less than one-half of the wheat of the Columbia river basin; and of this amount, she is lightering nearly one-third to San Francisco by steamers not requiring much deeper channel, if any, than now exists.

Portland, because of these four shippers, has been, through the aid of the Port of Portland Commission, asking congress to appropriate \$72,464 more, in the hope of securing a 25-foot channel. This was the estimate of the local engineer, Major Handbury. But Major Handbury's superior officer and the board of engineers state that this estimate will not give sufficient improvement; that the style of construction proposed would last only a "few years"; that the proposed channel width of 150 feet is insufficient; and that more dredging will be required. How much a proper scheme would cost the board does not state, nor does it apparently hope to secure enough for such a proper scheme from congress. But with the cheap and temporary style of construction suggested by Major Handbury, and with the other betterments suggested by the board, the project will cost at least \$1,500,000. Such has been the experience in all similar improvements, even where the items of probable increase were not specified in advance, as here. This customary increase of final cost over preliminary estimates is indicated even by Major Handbury himself.

Whatever be the causes, the results are the same. He says of Swan Island Bar: "It was estimated in 1867 that the removal of 50,000 cubic yards of material would give an 18 foot channel 100 feet wide. Since that time fully 250,000 cubic yards have been dredged by the United States. In addition to this, the City of Portland has taken out probably 50,000 yards. The cost of this dredging has not been less than \$150,000." "A similar showing of increased cost in obtaining results might be made for the Postoffice bar and St. Helens bar, although not quite to the same extent." It will be noticed that the past dredging cost nearly 50 cents per cubic yard at Swan Island, as against only 15 cents allowed by Major Handbury for the future. Hence it is only what any business man would do to assume at least the \$1,500,000 named for the future construction, or a total expenditure of about \$2,500,000, equal to an annual interest of \$150,000. Allowing ten years as the "few years" which the board expects this construction to last, we have annual deterioration of \$250,000; or a total subsidy of \$400,000 per annum granted to assist Portland in doing what, if the government simply does nothing, the railways and Astoria will do for nothing. This sort of internal improvement for deep channels is not a gain to the people at large, and is simply subsidizing one locality against another. Let government wait until transportation by rail to the coast, and by large tows of light draught boats from the upper Columbia are in operation. It will then be time enough to see whatever more is needed. Meantime let all appropriations be for securing a light draught channel from the upper Columbia to the ocean. This will mean money in the pockets of a great body of producers instead of

in the pockets of a few merchants in Portland. The \$2,500,000 tons carried in 1890 on the Mississippi river was carried on three to five feet of water for less than two and one-half mills per ton mile, and much of it for only 0.51 mills per ton mile. While those depths are undoubtedly too small, it indicates in what direction the river and harbor appropriations should be made. The tonnage reaching Hamburg by the Elbe was on water of six feet down to two feet. If two transfers were saved by the proposed lower Columbia ship channel improvement to 25 feet depth (as would be the case in an Erie ship canal) the case would be much different; but a great towage system, such as those organized on European and Eastern American rivers, will bring down the light draught boats from the upper Columbia for less than one and one-half mills per ton mile. The cheapness of these towage systems, with tows of from 5 to 100 boats, in broad rivers, equals and generally exceeds the cheapness of deep draught vessels moving in restricted channels. On the Rhine, the Elbe and the Oder, these tows (or strings, as they are there termed) run up to 10,000 tons each. On the Hudson river, a tow contains from 50 to 80 boats, of about 200 tons each, and of draught of from five to six feet. The towage rate from above Albany to New York, over 140 mile, is \$25.00 per boat. On the Mississippi river still larger tows of coal barges are taken from Pittsburgh to New Orleans at very low rates. From St. Louis to New Orleans, the Mississippi Valley Transportation Company transfers freight at a very low rate, using eight powerful tug boats and eighty large barges, holding 60,000 bushels of grain each. The divisibility of these tows enables them to gather and leave boats at many localities, even those having only very shallow ports; and thus one of the advantages which enables railroads to compete against ordinary vessels in inland waters and secure much higher rates while doing so, is secured by the tows as against deep draught vessels on rivers.

In regard to the increased cost by deep draught vessels when on contracted inland waters, Col. E. L. Corbett, the associate of Col. Edes on the Mississippi jetties, thus writes in a paper to the Canadian Society of Civil Engineers: "No narrow channel is to be constructed as all adequate for the wants of commerce. Careful investigation has made it evident that nothing but unrestricted channels of the very large dimensions for laden vessels of large tonnage, will at all compare with the advantages of transportation by rail, particularly in the United States and Canada."

In these narrow channels, besides the necessary reduction of speed, the vessels do not steer well whenever a variation of width occurs; in going down stream, the currents affect the rudder even in straight channels; and care is required to avoid the edges of the channel. It has been necessary to widen the Suez canal to 325 feet, and the Baltimore ship canal to 275 feet.

The advocates of bringing ocean vessels inland are constantly losing sight of the important difference between such navigation and that on the free ocean. By free ocean service, the costs at times get as low as less than one mill per ton-mile. But such an ocean vessel has spent 24 hours in going 114 miles inland to Portland; or nearly 20 hours of actual towing time. To the increased cost from such an altered mode of navigation, add 50 cents per ton for towage, pilotage, etc., and it is readily seen why ocean service is not secured inland, let the vessel's draught be what it may. Where light draught boats can be taken without transfers from the producers to a convenient harbor at the river mouth, river improvement for ocean vessels is a waste of money. One of the leading champions of an inland seaport location in a paper intended to be in its favor, thus admits the increased cost of inland navigation over ocean navigation: "The moving mass that seeks transportation reckons distance to be as nothing on the ocean, as compared with the cost of movement on land or river."

He describes the river entrance to Philadelphia as "a tedious navigation, against head winds in a narrow roadway." His argument is a strong plea for a large percentage of free ocean carriage as compared with inland carriage, which all admit to be desirable, but as an argument for going inland up rivers, it refutes itself. The cheapness of tows and their advantages, as compared with deep draught vessels inland, would be particularly great on the Pacific Coast, where the ocean vessels can sidism count on cargoes in both directions, but the small craft can avail themselves of local traffic up-river. This fact makes a Coast location much better than an inland location for any mart of trade, as distinguished from a mere shipping point, and will serve the whole river. (To be Continued Tomorrow.)

POLICE COURT.
Hank Price's right eye was prominent in the police court yesterday afternoon; prominent because his left one was nearly gouged out Sunday night by a bullet-headed Russian Finn named Emanuel Matson, who sat beside him in the dock. They had been involved in a quarrel at a Finn saloon, and Matson got Price out in the street and proceeded to slaughter him then and there. In his drunken frenzy he jumped on him with his feet, and would have more seriously injured him had not the police arrived and taken them to the station. Matson was fined \$40, while a fine of \$5 was put on Price, presumably for being in bad company.

There were five other cases of drunken and disorderly conduct on the docket, and the total amount of fines assessed in these cases was \$25.

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Office on Second Street, Astoria, Or.

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May be found in his office until 10 o'clock mornings, from 12 noon until 2 p. m., and from 5 until 7:30 evenings.

MISCELLANEOUS.
HOTEL.—Remember McGuire's Hotel at Seaside is open the year around.

CALL ON P. BAKER, 473 Third St., and have your clothes dyed and cleaned.

WHEN IN PORTLAND—Call on Handley & Haas, 150 First street, and get the Daily Astorian. Visitors need not miss their morning paper while there.

YOUR FRIENDS IN EUROPE.—If you have friends in Europe whose passage you wish to prepay to Astoria, call at the Northern Pacific office, steamer Telephone dock, and make known your wants. Reduced fare via the leading steamship lines.

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SOCIETY MEETINGS.
PILOT COMMISSIONERS.—The regular meetings of this board will be held on the first Monday of each month at 10 a. m., at the office of Robb & Parker. W. L. ROBB, Sec.

NOTICE.—The regular meetings of the Astoria Building and Loan Association are held at 8 p. m. on the first Wednesday of each month. Office on Genevieve street, south of Chenamus. W. L. ROBB, Secretary.

OCEAN ENCAMPMENT No. 13, I. O. O. F.—Regular meetings of Ocean Encampment No. 13, in the Odd Fellows' Building, at 7 p. m., on the second and fourth Mondays of each month. Sojourning brethren cordially invited. By order, C. P.

COMMON COUNCIL. Regular meetings first and third Tuesday evenings of each month at 8 o'clock in city hall. Persons desiring to have matters acted upon by the council at any regular meeting must present the same to the auditor and clerk on or before the Friday evening prior to the Tuesday on which the council holds its regular meeting. K. OSBURN, Auditor and Police Judge.

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For 12 months, 6 per cent per annum

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J. E. HIGGINS, Cashier.
J. C. DEMENT, Vice-Prest.

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