

# PORT PILING UP BIG GAINS; STEAMER LINES TOTAL 43

## OREGON'S OUTPUT SHIPPED TO ALL PARTS OF GLOBE

Channel and Terminal Improvements Place Portland in Ing Position Among Ports.

Among all the ports of the United States the Port of Portland affords the best example of rapid growth and of recovery from post-war depression.

Four years ago the port's business had dropped almost to nothing.

We had no regular steamship connection with any foreign port.

Three years ago the port had the service of two steamship lines—three coastal and five to the Orient.

This was the status when the Port of Portland's traffic department was established in April, 1920.

Today the Port of Portland has the regular service of 43 steamship lines. Tramp steamer service is large.

But more, grain from the Columbia basin, sent through the Port of Portland, furnishes bread for war distressed Europe and the newly ambitious peoples of the Orient.

Oregon apples are the most popular fruit eaten by the children of New York, the canny Scots of Glasgow and the South of England lassies whose pink cheeks rival the blushes of the fruit.

Oregon lumber is shipped out by water and rail enough daily to build a city for 6000 people.

Oregon wool brought here for export would supply a new suit for each of 4,000,000 men.

Columbia river salmon swim back from the Pacific to go in cans to the far corners of the world.

Oregon meat, dairy and poultry products, like Oregon fruit and grain, are becoming famous wherever people are hungry.

In foreign tonnage movement, federal authority gives Portland eighth place and Seattle twelfth among the ports of the Union.

In a new trade, the importation of copra, Portland ranks first on the Pacific coast if not in the entire country.

Apple exportation to Europe is becoming a substantial commercial factor, and Portland ranks toward the top in this growing business.

During 1920 only 68 ships entered the Port of Portland from foreign and 599 from domestic ports. The entries from foreign ports reached 194 in 1921, with 715 from domestic ports. This year the vessels entering from foreign ports will total 240, with 900 from domestic ports.

The clearances have correspondingly grown: to foreign ports 192 in 1920, 324 in 1921 and 330 as an estimate for this year; to domestic ports 311 in 1920, 530 in 1921 and 940 estimated this year.

### Port of Portland High Lights

Forty-four million-dollar investment by port, dock commission and government in channel, terminals and service.

Forty-three foot harbor entrance and 30-foot river channel at low water. One hundred and ten miles from Pacific, at head of deep-water navigation. At confluence of Willamette and Columbia rivers, hinterland of 254,000 square miles.

Forty-three steamship lines, giving coast, intercoastal and foreign service regularly.

First port in lumber and wool shipments; second in grain and flour; second on Pacific coast in freight tonnage movement, and eighth in United States in foreign tonnage; first Pacific coast port in copra importation.

First American port to establish traffic solicitation department.

Columbia river furnishes only fresh water harbor on Pacific coast and only water grade connection with interior.

People of Portland have spent more than \$17,000,000 for four modern public terminals, channel and harbor improvement. Government has spent about \$16,000,000 for jetty system at mouth of Columbia and Columbia river channel. Port furnishes pilotage and towage service.

Public grain-handling facilities best on the coast, with 1,000,000 bushel bulk grain elevator.

More than 1,000,000 gallons' capacity for handling and storing vegetable oils and molasses. Special ventilated storehouse for apples and other fresh fruits.

Our commerce for the year, domestic and foreign, will not fall far below \$200,000,000.

This in spite of chaotic foreign conditions and comparatively sluggish recovery in domestic affairs.

Portland is the largest single lumber exportation port of the Union.

Portland is the largest primary wool market and shipping center in the United States.

In grain and flour exportations the Columbia river is second only to Galveston, while Seattle is eighth in the list.

In foreign export tonnage of the Pacific, the Port of Portland is second; San Francisco is first, Los Angeles third and Seattle fourth.

The net tonnage of the vessels in the two-year period has increased more than four times in foreign entries and more than twice in clearances foreign.

Ship tonnage has doubled in domestic entrances and more than doubled in domestic clearances during this period.

The dredging plant has been brought to the port of efficiency. From harbor entrance to harbor end facilities are provided for the promptest and most economical handling of freight movement.

The advantages of Portland's water grade communication with her vast hinterland over competitors that have mountain barriers to cross are again and again demonstrated in the figures of growing commerce.

A few years ago the Columbia entrance was a baffling problem. It is now a problem solved with a depth of 42 feet at low water over a width of 4000 feet and a depth of 40 feet over 6500 feet. This means that the harbor entrance common to the ports of Portland, Astoria and Vancouver is more than 50 feet deep at high tide, a channel which may safely and without delay be used night or day by any vessels of the Pacific and with less fear of fog than at any other harbor entrance on the coast.

The channel from Portland to the sea not only has a maintained depth of 30 feet, but is the subject of a proposed extra federal appropriation

of \$1,700,000 which will be used in dredging and dredging intended to broaden and deepen what is even now the finest river channel for ocean-going craft in the country.

Harbor maintenance has attained new efficiency in the last three years. The dredging of three years ending with 1919 amounted, for instance, to 12,484,19 cubic yards, and with practically the same equipment to 23,400,000 cubic yards during the three years ending in 1922.

The material dredged this year by Port of Portland equipment would blot out all the buildings in the area fronting the Willamette and bounded by Madison, Tenth and Broadway streets. Or it would completely fill the Willamette from Hawthorne bridge to a point north of the Broadway bridge.

The dredged material of this year alone amounted to 16,600,000 cubic yards.

In addition to inner harbor work, and cooperation with the government below the mouth of the Willamette, the port's dredging plant is being used in constructing the 13-mile dike behind which the city of Longview near Kelso will be established. This plan permits the port to earn a large sum of money and to save the Long-Bell company probably more than a million dollars.

The growth of intercoastal business has been the outstanding feature of the dock commission's year. It became evident that the gigantic Terminal No. 4 was being utilized largely for foreign and heavy commodity business.

Terminal No. 1 on the west, close to the business district, was equally popular for intercoastal freight. This terminal was expanded by the construction of a new pier 500x248 feet. As a whole the terminal covers more than 15 acres.

Terminal No. 2, on the east side, is chiefly used by coasters.

The apple exportations of the year reach 476,000 boxes and to accommodate the movement, a ventilated storage warehouse was constructed, necessitating a 300-foot harbor line extension to Pier No. 1 of Terminal No. 4.

Apples grown in Oregon, Idaho and Washington are being shipped by way of Portland terminals. Apples came this year to Portland for export from

Ashland, Medford, Rogue River, Rock Point, Grants Pass, Myrtle Creek, Creswell, Drain, Roseburg, Southern, Eugene, Southern Oregon. From the Willamette and Umpqua valleys came also large quantities of prunes. Twenty to 25 trucks a day have been loaded in hauling fruit to Portland terminals, supplementing rail transportation. Hood River, Mosier, The Dalles, in Oregon; Lyle, Underwood, Opportunity, Epokane, Fairfield and Croston in Washington and Lewiston in Idaho are all towns that have taken advantage of Portland's exceptional fruit shipping facilities. Most of the apples shipped by water go to the Atlantic coast, chiefly New York; and Glasgow, Liverpool, Southampton and London in Europe.

In cooperation with the Hood River Apple Growers association tests are to be made of the efficiency of the ventilated fruit storage provided which will be helpful in handling the fruit movement of next season.

In the routine operation of Portland's terminals other experiments are used to determine the effective-ness of various kinds of equipment. For instance it has been found by tests at Terminal No. 4 and the bulk grain elevator that 13 times as much labor is required unloading sack grain from cars as bulk grain and that the cost of unloading sack grain from cars and placing it on the warehouse floor is four times greater than to unload bulk grain from cars and place in bulk elevator bins.

Dock officials are looking forward to an early inauguration of phosphate rock movement for which facilities were provided some time ago.

Since 1920 the port and dock commissions together have maintained a

traffic department, the first of its kind in the history of American ports. With headquarters in Portland, this department also has personal representation in New York and the Orient, and during the coming year will place port traffic agents in South America and Australia. The work of the traffic department is to foster friendliness between this and foreign ports and to induce shippers to use the facilities of this port.

The great growth of intercoastal and Oriental commerce, together with the starting increase of steamship lines regularly serving the port, is significantly contemporaneous with the activities of the traffic department.

To revert to the opening of this article, the Port of Portland has started shippers throughout the world by the increase in number of ship lines in the last four years. This increase has been coincident with the increase of port facilities, the improvement of the channel and the selling campaign in behalf of the port itself. If Portland had not demonstrated a self-reliance distinctive among all ports and if the people of Portland had not appropriated many millions of dollars for terminals and channel improvement, Portland would doubtless be today ranked as merely an interior town with incidental ocean traffic rather than as a world port.

The record shows that in 1919 we had the service of the San Francisco & Portland Steamship company with the McCormick and Nelson lines carrying lumber to California and the Pacific Steamship company making its first sailing to the Orient in May.

In September of 1919 the Columbia-Pacific Steamship company was allo-

ated shipping board vessels for Shanghai and North China ports.

The Pacific Ocean Steamship company lines regularly serving the port today:

Admiral line, American-Hawaiian Steamship company, Asiatic-American Steamship company, Blue Star line, Charles Nelson line, Columbia Navigation company, Compagnie Generale Transatlantique, Crowell & Thurlow, Ellerman's Wilson line, Elder Steamship company, Furness-Prince line, General Steamship corporation, Grace line, Holland-American line, Isthmian Steamship line, Java-Pacific line, Johnson line, K line (Kokuka Kisen Kaisha), Kawasaki Dockyard company (Kawasaki Kisen Kaisha), Latin American line, Luckenbach Steamship company, Matson Navigation company, McCormick Steamship line, Mitsui & Co., North China line, North Atlantic line, Norway Pacific line, Ocean Motorship company, Pacific-Argentine-Brazil line, Pacific-Australian line, Pacific-Caribbean, Gulf line, Pacific Mail Steamship company, Royal Mail Steam Packet company, San Francisco and Portland S. S. company, Societe Generale de Transports Maritimes, South China line, Toyo Kisen Kaisha, Teikoku Kisen Kabushiki Kaisha, Williams line, Yamashita Kisen Kaisha, Moore & McCormick, Garland line, Munson line and the Yamashita line.

With these messengers from foreign lands and American ports coming and going the Port of Portland is as colorful, full, romantic and busy a place as could be imagined.

### Ocean Steamships Using Terminals Increase Double

Use of Portland's public ocean terminals increased more than 100 per cent during the past year.

The following tables show, in tons, the volume of business handled over the four terminals during the year ending November 30, 1922:

VESSELS ENTERED AT PORT OF PORTLAND		
From Foreign Ports—		
No. Vessels	Net Tonnage	
11 months 1922	221	337,059
11 months 1921	170	622,144
From Domestic Ports—		
11 months 1922	841	2,047,803
11 months 1921	647	1,636,431
VESSELS CLEARED FROM PORT OF PORTLAND		
For Foreign Ports—		
11 months 1922	310	1,132,447
11 months 1921	287	1,065,428
For Domestic Ports—		
11 months 1922	760	1,751,950
11 months 1921	523	1,209,608

### Commodities Moved Through Port

How Columbia basin products go through the port of Portland in response to world demand is shown by the following table, covering commodity movement for 11 months of 1922, as compared with the same period last year:

LUMBER		
Shipments Foreign—	Feet.	Valuation.
11 months 1922	221,510,347	\$ 5,323,442
11 months 1921	147,316,834	3,785,898
Shipments Domestic—		
11 months 1922	88,420,000	1,865,164
11 months 1921	31,566,000	735,611
WHEAT		
Shipments Foreign—	Bushels.	Valuation.
11 months 1922	22,321,456	\$26,376,574
11 months 1921	34,459,152	44,033,961
Shipments Domestic—		
11 months 1922	39,178	52,174
11 months 1921	192,115	240,774
FLOUR		
Shipments Foreign—	Barrels.	Valuation.
11 months 1922	967,451	\$ 5,034,235
11 months 1921	1,113,865	6,438,200
Shipments Domestic—		
11 months 1922	493,786	3,166,307
11 months 1921	464,172	3,142,467

Apple shipments through the Port of Portland this year will aggregate 1,000,000 boxes, a gain of about half a million boxes over last year.

Apples of average size number 125 to the box. At this rate our shipments would furnish an apple apiece for every man, woman and child in Great Britain, France and Belgium, with many millions left over for those who wanted a second helping. Pinned side by side, the apples from the Northwest sent this year through Portland would make a row across the American continent.

The apples go to the Atlantic coast, chiefly New York, and to such European ports as Glasgow, Liverpool, Southampton and London.

They are gathered into Portland by every modern form of conveyance except the airplane.

STORAGE PROVIDED

Trucks, river boats and railroads each carry their quota. Ventilated storage room is provided at terminal No. 4 with a capacity of 500,000 boxes at one time. In cooperation with the Hood River Apple Growers' association and the dock commission these facilities are being rigorously tested with a view to determining the keeping property of apples of various kinds under various conditions.

To carry the fruit to the Atlantic coast and to Europe, ships with large refrigerator spaces are employed.

Through the Willamette and Columbia rivers, Portland has a channel of 30 feet in depth at low tide and zero water, while with tides and higher waters the channel is actually from five to 15 feet more for nine months of the year. In maintaining the 30-foot channel, the dredges dug to a depth of 33 feet zero water to provide a margin.

Engaged on the lower Columbia river are the 24-inch pipe line dredges Multnomah and Wahkiakum, and the hopper dredge Clatsop with two 18-inch suction.

The three have been operated at a cost of \$407,026.04.

Their work for the year, with the month of December estimated according to the projects they were engaged on during the latter part of the tenth month, are as follows:

Dredge	Cu. Yards Excavated	Cost of operations cu. yard
Wahkiakum	2,276,700	\$ .057
Multnomah	2,623,789	\$ .052
Clatsop	2,479,743	\$ .056
<b>Total</b>	<b>7,380,232</b>	<b>\$ 179,295</b>

Eleven dikes in all have been completed or are in the process of construction. Four separate dikes at St. Helens, which was begun during the year, will be 3800 feet long when completed. Four separate dikes at Martin island bar have a total length of 3900 feet.

With their ladders set for digging to a depth of 33 feet, the three dredges of the second Portland harbor district have dug through 34 miles of channel in the lower Columbia river during 1922. They have maintained a channel width of 200 feet from the mouth of the Willamette river to the sea. Uncle Sam's dredges have moved 7,380,232 cubic yards of material from the river bed, disposing of it on the shoals along the shores of the river or dropping it at sea at a cost of a little over 5 cents a cubic yard.

In the lower Columbia river approximately 9900 feet of dikes of piling and rock, to assist in maintaining the channel, has been built at a cost of \$147,628.80, or \$14.91 a foot.

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