

Portland Municipal Terminal No. 4  
The Commission of Public Docks  
Portland, Oregon

PERSPECTIVE OF PORTLAND MUNICIPAL TERMINAL NO. 4

Annual Report  
*of*  
The Commission of  
Public Docks  
*of*  
Portland, Oregon

YEAR ENDED NOVEMBER 30

1922

# The Commission of Public Docks of Portland, Oregon

---

## COMMISSIONERS

JOHN H. BURGARD, Chairman  
F. C. KNAPP, Vice-Chairman  
A. H. AVERILL  
C. C. HINDMAN  
IRA F. POWERS

---

## Chief Engineer and Secretary

G. B. HEGARDT, M. AM. SOC. C. E.

---

## PROPERTIES

MUNICIPAL TERMINAL NO. 1  
FOOT OF FIFTEENTH STREET

MUNICIPAL TERMINAL NO. 2  
FOOT OF EAST WASHINGTON STREET

MUNICIPAL TERMINAL NO. 3  
FOOT OF PITTSBURG STREET

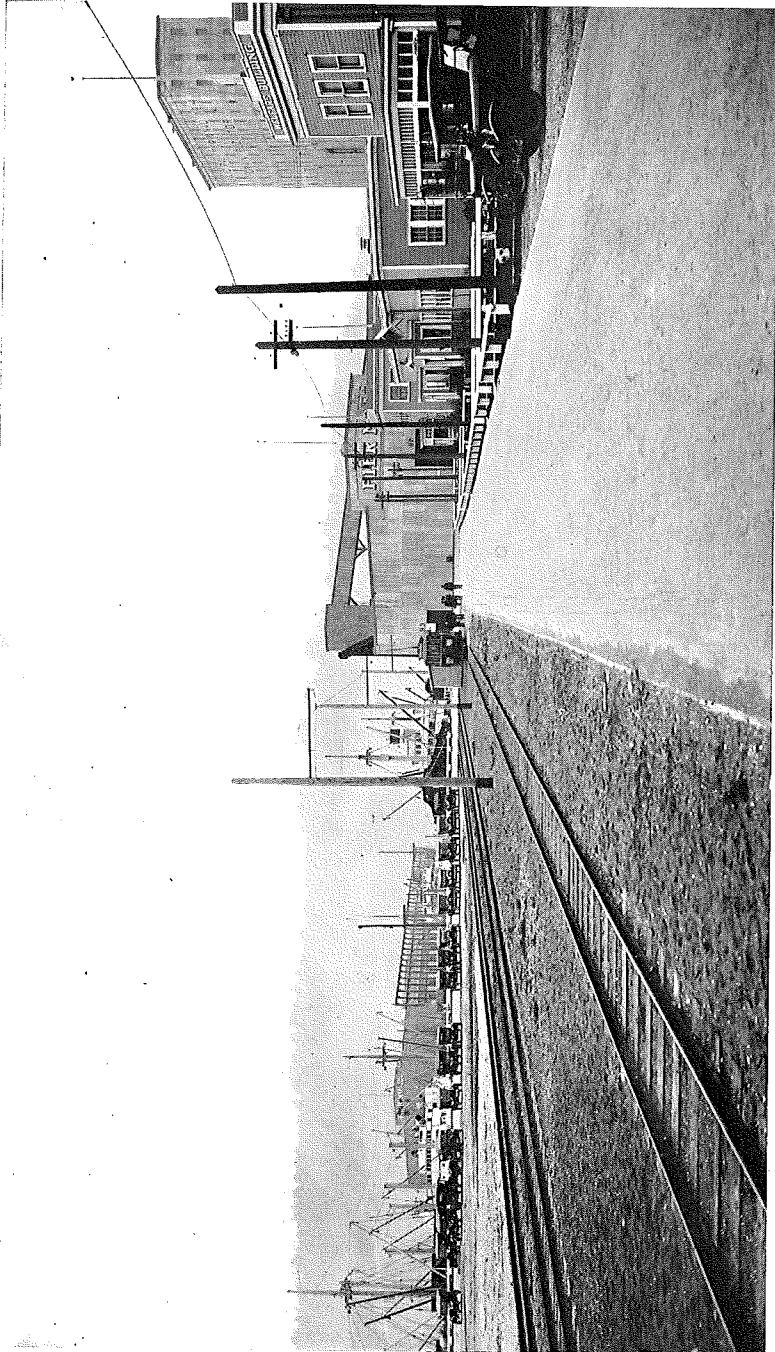
MUNICIPAL TERMINAL NO. 4  
FOOT OF KELLOGG STREET

MUNICIPAL DRY DOCK  
FOOT OF EDGEWATER AVENUE

MUNICIPAL STREET RAILWAY  
JERSEY AND FESSENDEN STREETS TO  
MUNICIPAL TERMINAL NO. 4

MUNICIPAL BOAT LANDING  
FOOT OF WOODWARD AVENUE

MUNICIPAL BOAT LANDING AND EXECUTIVE OFFICES  
FOOT OF STARK STREET



ENTRANCE TO MUNICIPAL TERMINAL NO. 4

Slip No. 1 with Piers Nos. 1, 2 and Grain Elevator in Background, Administration and Welfare Buildings and Restaurant in Foreground. Street Car Service is Maintained Directly to the Terminal

# Annual Report of The Commission of Public Docks

---

Hon. George L. Baker, Mayor of the City of Portland, Oregon.

Sir: The Commission of Public Docks, in compliance with provisions of the City Charter, herewith submits its twelfth annual report, for the fiscal year ending November 30, 1922.

The organization of The Commission of Public Docks, at the close of the fiscal year, consists of the following commissioners: John H. Burgard, Chairman; F. C. Knapp, Vice-Chairman, A. H. Averill, C. C. Hindman and Ira F. Powers. A. H. Averill, whose term of office expires December 7, 1922, was, by you, appointed to succeed himself.

At the close of the fiscal year the Commission had disposed of \$2,400,200.00 of the \$2,500,000.00 Dock Bonds authorized by the electorate on November 8, 1910; all of the \$3,000,000.00 Elevator Bonds authorized at the election held June 4, 1917, and all of the \$5,000,000.00 Harbor Development Bonds authorized at the election held November 5, 1918, leaving at this time \$99,800.00 of Dock Bonds unsold. The total authorized bond issues for the provision of Municipal, commercial water terminal facilities of the port have, therefore, been \$10,500,000.00. Of this amount there had been expended to December 1, 1922, in the acquisition of terminal sites, dredging and filling operations, construction, equipment and for all other purposes, the sum of \$10,251,379.65.

The Commission deems it advisable to continue its usual custom of including in its annual report a full description of all of the facilities of the port, both municipal and private, together with a general statement of the entrance and channel conditions leading from the sea to the harbor of Portland, in order that the shipping world may be fully informed of the excellent facilities which have been provided by the City of Portland for the accommodation of the shipping of the port.

When the Commission ended its fiscal year November 30, 1921, it was rather believed that the terminal facilities which at that time had been provided would prove ample for the accommodation of the port's waterborne commerce during 1922, and that additional construction could be, to a large extent, suspended during the greater portion of that period. It soon became evident, however, that the shipping of the port was not only increasing at an unexpected rate, but that it would, undoubtedly, continue to do so from month to month and that, therefore, no time should be lost in satisfactorily meeting the urgent demands of this increased shipping.

It is proper to state, however, that the Commission had anticipated a greatly accelerated inter-coastal business and had secured an option on the property formerly occupied by the Willamette Iron and Steel Works, adjoining Municipal Terminal No. 1, at the price of \$180,000, which included several structures which with some alterations, could be utilized both as to sub-structures and transit sheds, in the construction of a new pier, thereby effecting a considerable saving as compared with an entirely new structure of the same design and dimensions. This property was purchased early in the year and Pier "B" of Terminal No. 1 constructed thereon. This pier was completed in August.

Another improvement which the Commission found itself under the necessity of undertaking during the year was the construction, at Terminal No. 4, of a ventilated apple storage warehouse, and, in conjunction therewith, a harbor extension of Pier No. 1, of this terminal, of approximately 300 feet. This pier extension called for the acquisition of a small parcel of land, adjoining Pier No. 1, and this was purchased for the sum of \$2006.00, the area of the land acquired amounting to only 1.07 acres. A full description of the apple storage warehouse will be found in another portion of this report.

Notwithstanding the increased facilities provided at Terminal No. 1, by the construction and placing in operation of Pier B, the Commission was still confronted with a serious congestion in handling the large inter-coastal business transacted at this terminal, and in order to properly care for this constantly expanding service of the port, the Commission obtained an option on another piece of waterfront property, adjoining Pier B, for the sum of \$152,500.00. This tract of land is sufficiently large to permit the construction of a pier 569 feet long. It is expected that actual construction of this pier will be undertaken early in 1923, and, when completed, Terminal No. 1 will, then, have a total berthing space of 2975 lineal feet and a transit shed area of 364,766 square feet.

### MUNICIPAL PORT FACILITIES

With funds made available from the authorized bond issues referred to above, the Commission has completed and placed in operation the following terminal facilities:

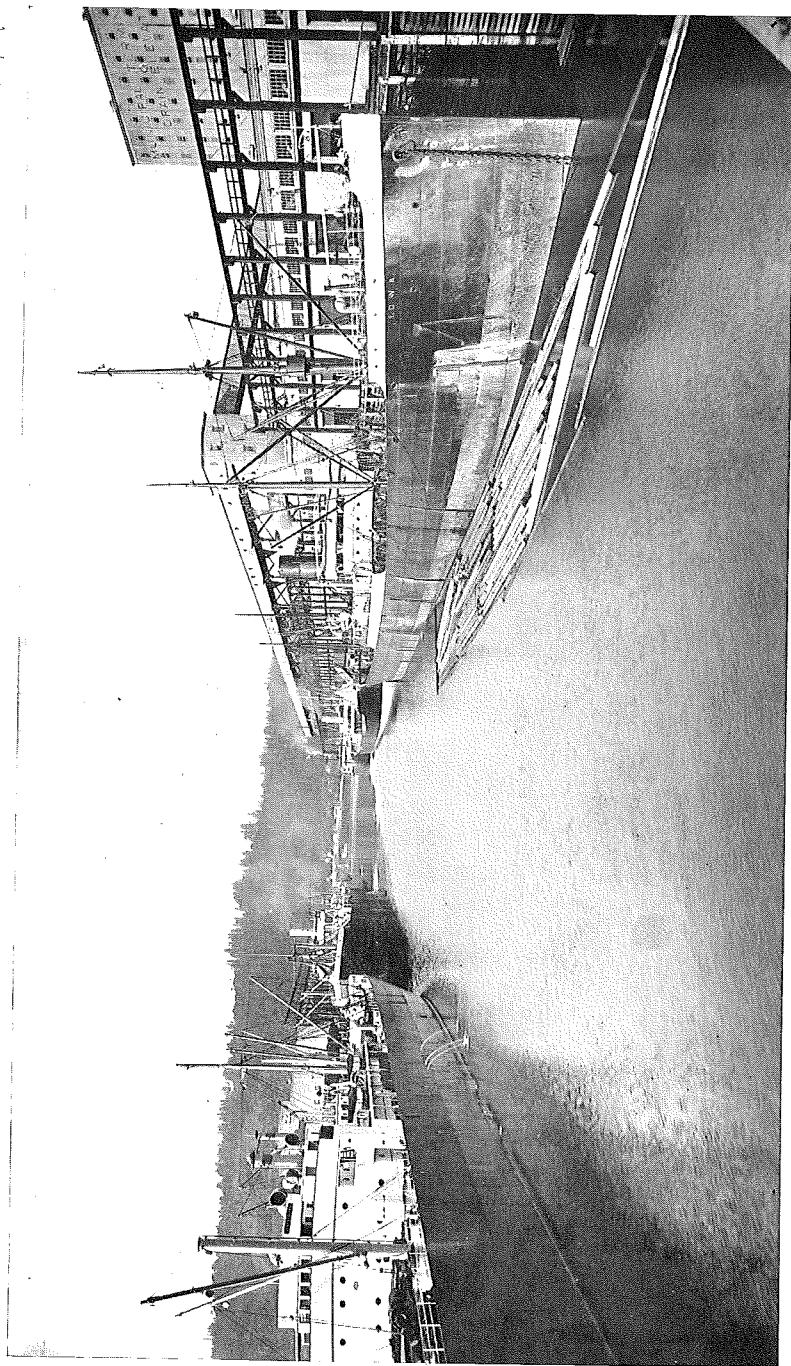
**Municipal Terminal No. 1:** This terminal consists of a quay dock 955 feet long, 300 feet of which has two levels, with a transit shed 935 feet long and 100 feet wide.

**Pier A**—484 feet long, with transit shed 176 feet wide.

**Pier B**—500 feet long, with transit shed 187 feet wide.

**Warehouse No. 1:** One-story structure approximately 190 feet by 200 feet with covered area of 37,600 square feet.

274



SLIP NO. 1 MUNICIPAL TERMINAL NO. 4, WITH SIX VESSELS BERTHED

The present available berthing space of this terminal is 2229 lineal feet and area under shed 273,700 square feet.

This terminal, which is located in the central railroad terminal district of the City, has a trackage accommodating at one time 124 standard railroad cars. The mechanical equipment consists of a 20-ton locomotive crane,, electric dock winches, cargo hoists, freight elevators, adjustable ramps, electric and gasoline tractors, powered and gravity conveyors and freight piling machines. All structures are provided with automatic sprinkler systems and secondary water supply tank.

This terminal is nearly exclusively used for inter-coastal traffic.

**Municipal Terminal No. 2:** A two-level quay dock 526 feet long, with transit shed 100 feet wide and a trackage for the placement of twenty cars. Mostly coastwise shipping is accommodated at this terminal, which is automatically sprinklered and provided with cargo masts, electric elevators, adjustable ramps, a 5-ton derrick and freight piling machines.

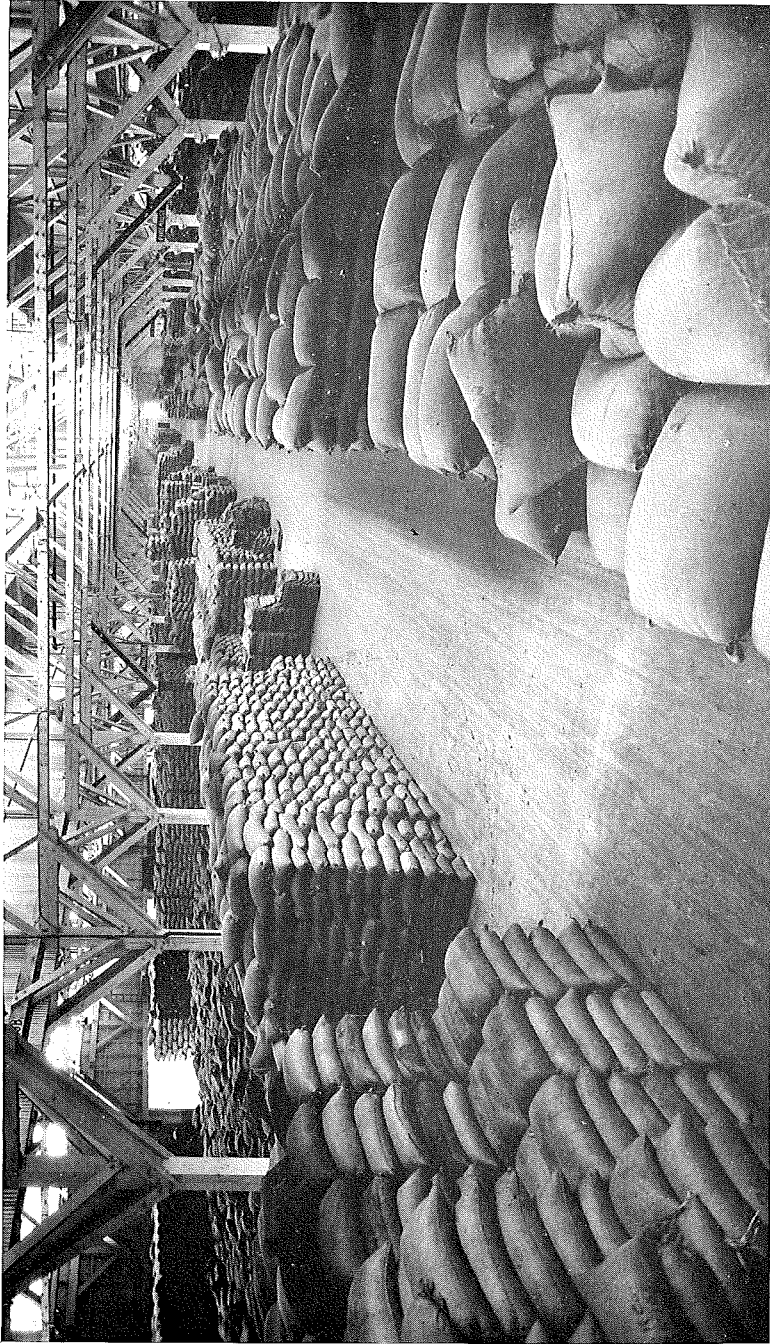
**Municipal Terminal No. 3:** A quay dock 560 feet long with transit shed 100 feet wide and trackage for 27 cars. Because time storage cannot be provided at the other municipal terminals of the port, this dock is, to a great extent, used for this purpose and particularly so for certain slow moving commodities.

**Municipal Terminal No. 4:** This is the most extensive of the municipal terminals. The site contains 162 acres, with a frontage of 3035 lineal feet, on which there has been constructed the following facilities, which include the apple storage warehouse and Pier No. 1 extension, both of which will have been completed early in 1923.

**Pier No. 1:** This pier has a length of 1500 feet along slip No. 1 and is 221 feet wide, the outer end being a two-level structure for a distance of 615 feet. On the harbor face this pier has a length of 605 lineal feet, which includes the extension now under construction and to be completed early in 1923, giving a total berthing space of this pier of 2105 lineal feet. The main transit shed of the pier is 1500 feet long and 180 feet wide and on the pier extension the transit shed is 328 feet long and 150 feet wide, or a total area under shed of 401,440 square feet.

The main section of Pier No. 1 has six sacking bins on the upper level, filled from the elevator by the shipping belts, and under the pier shed floor there is a conveyor belt running nearly the full length of the pier, onto which grain from sacks stored on the pier can be cut in and carried to the elevator for cleaning and smutting and storage, if so required. From the two-belt shipping gallery at front of this pier, with four movable trippers and fourteen spouts, two vessels can be loaded with bulk grain at one time.

2  
3  
4  
5  
6



CARGOES OF SACKED GRAIN ASSEMBLED ON PIER NO. 1, MUNICIPAL TERMINAL NO. 4

Track facilities are provided at both front and rear of Pier No. 1 and its harbor front extension, the tracks in rear of the pier having placement for 75 cars.

With proper allowance for trucking space and gangways, this pier with its extension has capacity for 40,000 tons of general cargo or 64,000 tons on the basis of grain and flour.

This pier has two electric elevators and two electrically operated ramps, or inclines, for handling freight to and from river steamers.

**Pier No. 2:** This pier which is also 1500 feet long, and 214 feet wide, is covered with a transit shed on its outer half 715 feet long and 166 feet wide. The uncovered one-half of the pier is mostly used for the accommodation of bulk freight. Double tracks are provided both at front and rear of the pier, the rear tracks accommodating 100 cars. The capacity of the shedded portion of this pier is proportionately the same as that of Pier No. 1.

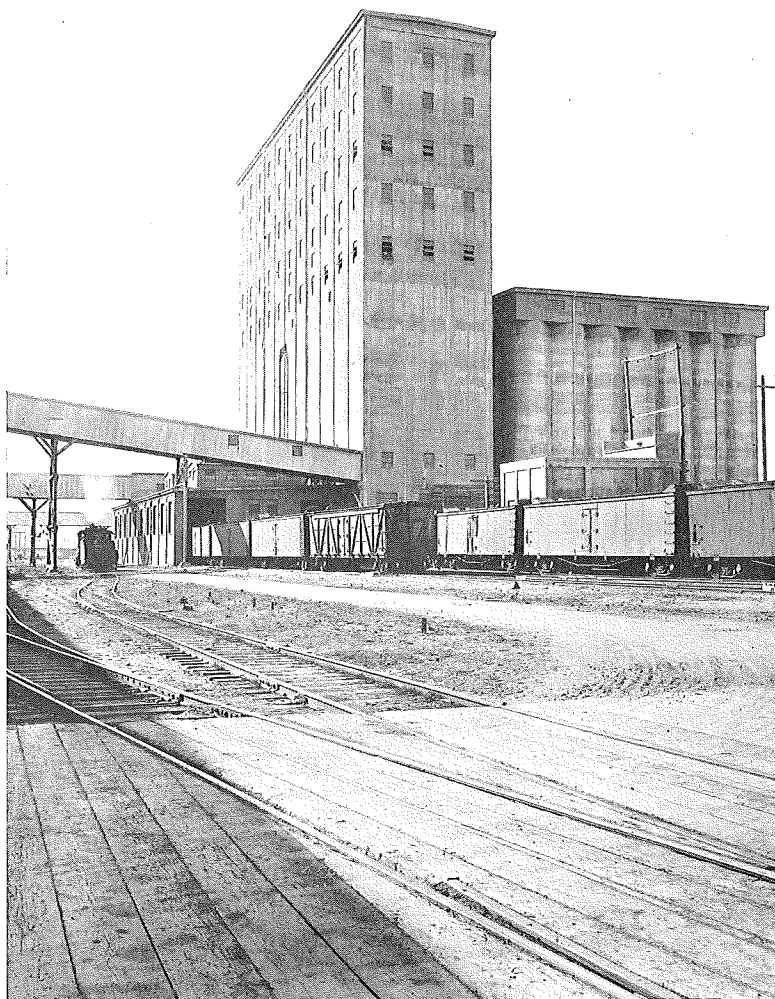
**Slip No. 1:** which serves Piers Nos. 1 and 2, is 1500 feet long and 280 feet wide and has a low water depth of 30 feet.

**Pier No. 5:** This pier consists of a quay dock having a harbor frontage of 665 lineal feet and pier proper 900 feet long, a total berthing space of 1565 lineal feet. In rear of the quay dock and pier an area of approximately 6.3 acres was filled to furnish necessary space for the large bulk storage plant constructed at this pier and provide an extensive area of open storage of such bulk commodities as lumber, logs, sulphur, coal, etc. A large trackage is available on this pier for the economical handling and storage of these commodities, this trackage being 9470 lineal feet.

**Slip No. 3:** For the joint use of Piers Nos. 4 and 5; it is 1000 feet long and 220 feet wide, with a low water depth of 30 feet.

**Grain Elevator:** This elevator, which is of fire proof construction throughout, was placed in operation late in 1920. It is designed especially with the view of successfully handling and cleaning the many grades and varieties of wheat produced in the Pacific Northwest territory. Special provisions are made to economically and quickly discharge large quantities of grain which is shipped in in sacks, bulk handling of wheat not having, as yet, been to a considerable extent, adopted in the wheat producing sections of the port's tributary territory. The total capacity of the elevator is 1,053,800 bushels, of which 298,700 bushels is in the operating house and 755,100 bushels in the storage annex. The unloading capacity is 120,000 bushels in eight hours and the elevator trackage has a holding capacity of 70 loaded and 90 empty cars at one time. During operation, the elevator has developed a delivery capacity of bulk grain to vessels of 30,000 bushels per hour. The smutting machinery installed is sufficient to scour 3000 bushels per hour. During the

476



1,000,000 BUSHEL GRAIN ELEVATOR, MUNICIPAL TERMINAL NO. 4

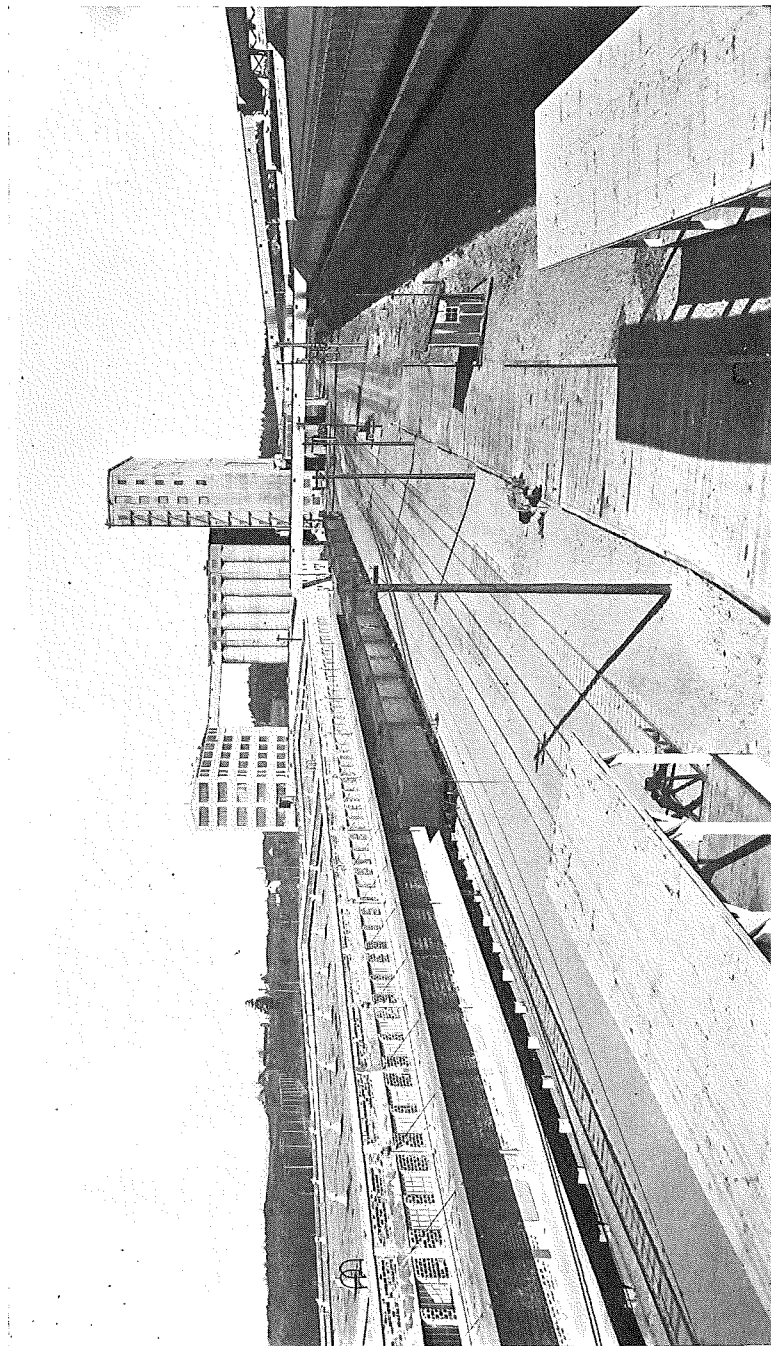
year an air compressor plant was installed for the purpose of aiding in keeping the elevator as free from dust as possible. This plant is in addition to the dust collector system provided in the original construction.

**Oil Bulk Storage Plant:** For the handling and storage of vegetable oil and molasses, of which large quantities are received at this port, eleven steel tanks have been constructed with a combined capacity of 1,092,000 gallons. Four of these tanks are designed especially heavy for storage of molasses, which commodity is shipped in as full cargoes from the Hawaiian Islands. To furnish necessary facilities for weighing oil and molasses, as they are pumped from vessel to storage tanks, there are two bulk scale tanks, each of a capacity of 60 tons. Certified weights are furnished by the Public Service Commission of Oregon. This plant is fully equipped with pumping mains from Piers Nos. 1 and 2, hot water, steam and compressed air pipes, tank car cleaning, filling and barreling facilities. Ten tank cars can be filled at one time. Additional equipment consists of two pumps for pumping oil from vessels' tanks to storage tanks, and flexible metallic hose for heating oil in vessel's tanks.

**Bulk Storage Plant:** This plant is constructed on Pier No. 5. The installation consists of covered concrete bunkers, together with necessary car unloading devices and belt conveyors for handling of materials. It was constructed primarily for the purpose of handling phosphate rock in bulk, of which immense quantities are available in the port's tributary territory, but is equipped also for taking care of other bulk material, such as coal, ores, etc. There are eight separate concrete bins, which have a combined capacity of 18,000 tons of phosphate rock or 9000 tons of coal. Delivery to vessel is made at the rate of 300 tons of phosphate rock or 200 tons of coal per hour, through two traveling ship's towers operating along the harbor face of Pier No. 5. In addition to the extensive belt conveyor systems, a special box car unloader is installed, which discharges the contents of a box car into a hopper in about eight minutes. To insure an accurate check on materials handled, through this plant, there has been provided, two Merrick weightometers, which have a guaranteed accuracy of 99 per cent.

**Ventilated Apple Storage Warehouse:** This apple warehouse, constructed in rear of Pier No. 1, of Terminal No. 4, is a single-story structure 120 feet in width and 610 feet in length, with ample covered unloading platform space and railroad trackage for the full length, on both sides of the structure. The construction is of what may be termed composite double air space type, the foundations of concrete and the exterior walls and intermediate fire walls of concrete and hollow tile.

477



VIEW IN REAR OF PIER NO. 1, MUNICIPAL TERMINAL NO. 4, VENTILATED STORAGE WAREHOUSE AT LEFT, GRAIN ELEVATOR AND TERMINAL FLOUR MILLS IN BACKGROUND WITH CONVEYORS LEADING TO PIER NO. 1 AT RIGHT

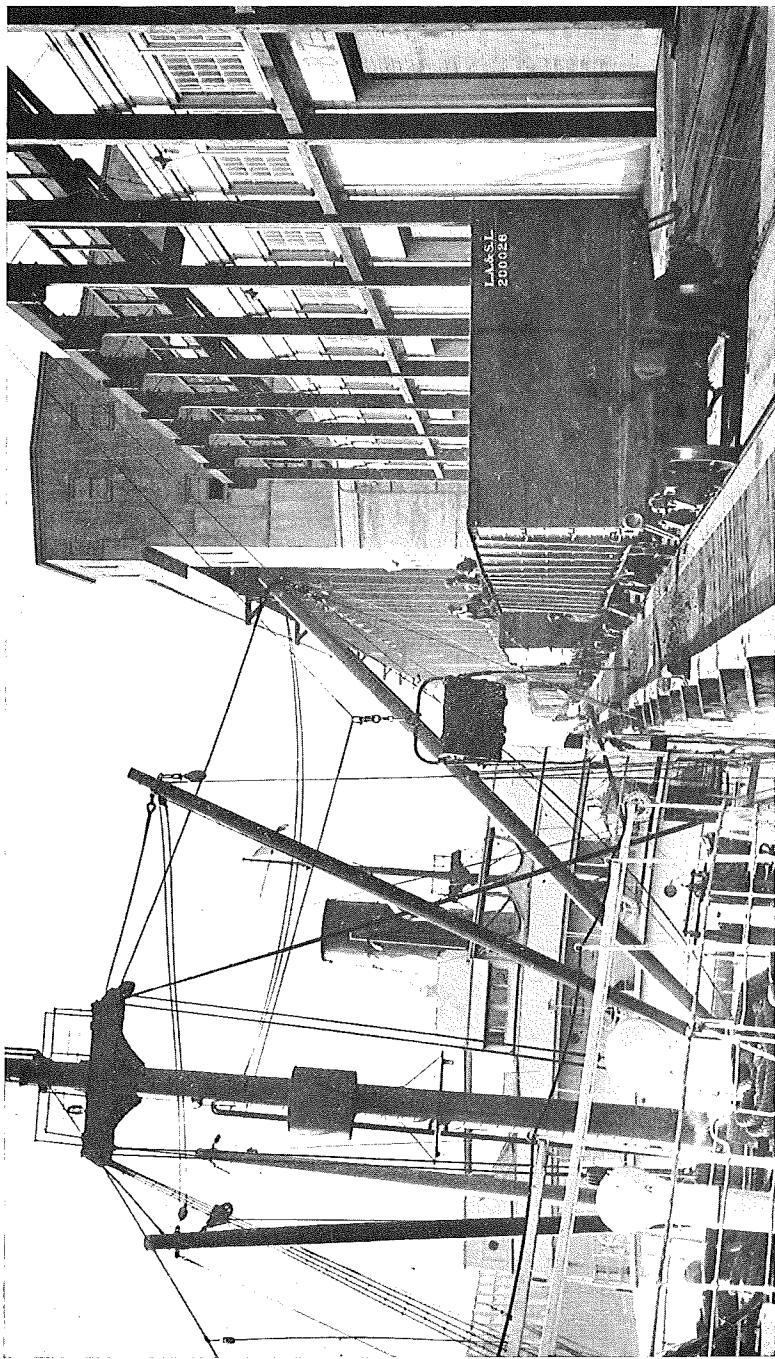
This warehouse is divided by transverse fire walls into three sections, each approximately 200 feet in length, and each fire wall is equipped with two fire doors, to preserve the double air space feature. Double insulated refrigerator type doors are provided at 40-foot intervals in the side walls for access by hand trucks, or by conveyors from cars. Double air space shutters are installed at all windows for closing the window openings, when temperatures are to be maintained, which would not be possible with the glass area exposure.

The ventilating features of the warehouse are as follows: At 20-foot intervals along the foundation walls, under the unloading platform, 2 by 3 feet openings are provided, with double air space shutters, operated from the car platforms. These openings permit a regulated supply of air to enter the 4-foot open space below the warehouse floor, for the full length of the warehouse, and provide the means for introducing a regulated supply of air into the warehouse proper. Sixty 12-inch improved rotating type, ventilators with dampers, in the roof, complete the natural ventilating system. The roof is of double air space construction, accomplished by the use of three layers of tongued and grooved ceiling and two layers of heavy insulating paper, in addition to the roofing felts, which form the upper insulation. The maximum capacity of this warehouse is 500,000 boxes of apples. In the design of this warehouse provisions are made for a possible installation of a fan system of ventilation and humidity control, should it be found advisable to install a system of this type in the future.

**Fuel Oil Tanks:** The General Petroleum Corporation has two 55,000 barrel oil tanks in rear of Pier No. 5 and immediately adjoining the terminal site, from which deliveries of fuel oil are made to steamers at two berths of this pier, through 10-inch pipe lines.

**Track Scale:** To avoid the necessity of having to transport cars to railroad yards, which are some distance from this terminal, to be weighed before being loaded, a 150-ton standard railroad track scale has been installed, and is being operated under the supervision of the Weighing and Inspection Department of the Transcontinental Freight Bureau.

**Administration and Other Buildings:** For the accommodation of the terminal forces, Government grain research work and branch office of the State Grain Inspection Bureau, a large two story office building was constructed, and for the purpose of enabling employes and others to obtain meals while working at this terminal, the Commission has for several years had a restaurant in operation, seating 200 people, where meals are served at reasonable prices at all hours, when work of loading or discharging vessels is being done. There is also a welfare building, with hot and cold shower baths, lounging rooms, etc.



DIRECT TRANSFER OF CARGO BETWEEN VESSELS AND CARS IS PROVIDED ON ALL PIERS AT MUNICIPAL TERMINAL NO. 4

**Street Car Service:** The Commission operates a street car line, about  $1\frac{1}{2}$  miles long, connecting Terminal No. 4 with the main street car service of the City, cars being operated continuously from 7 A. M. to 7 P. M. Special cars are run at any time thereafter when vessels are working. There is a five cent fare each way on this line.

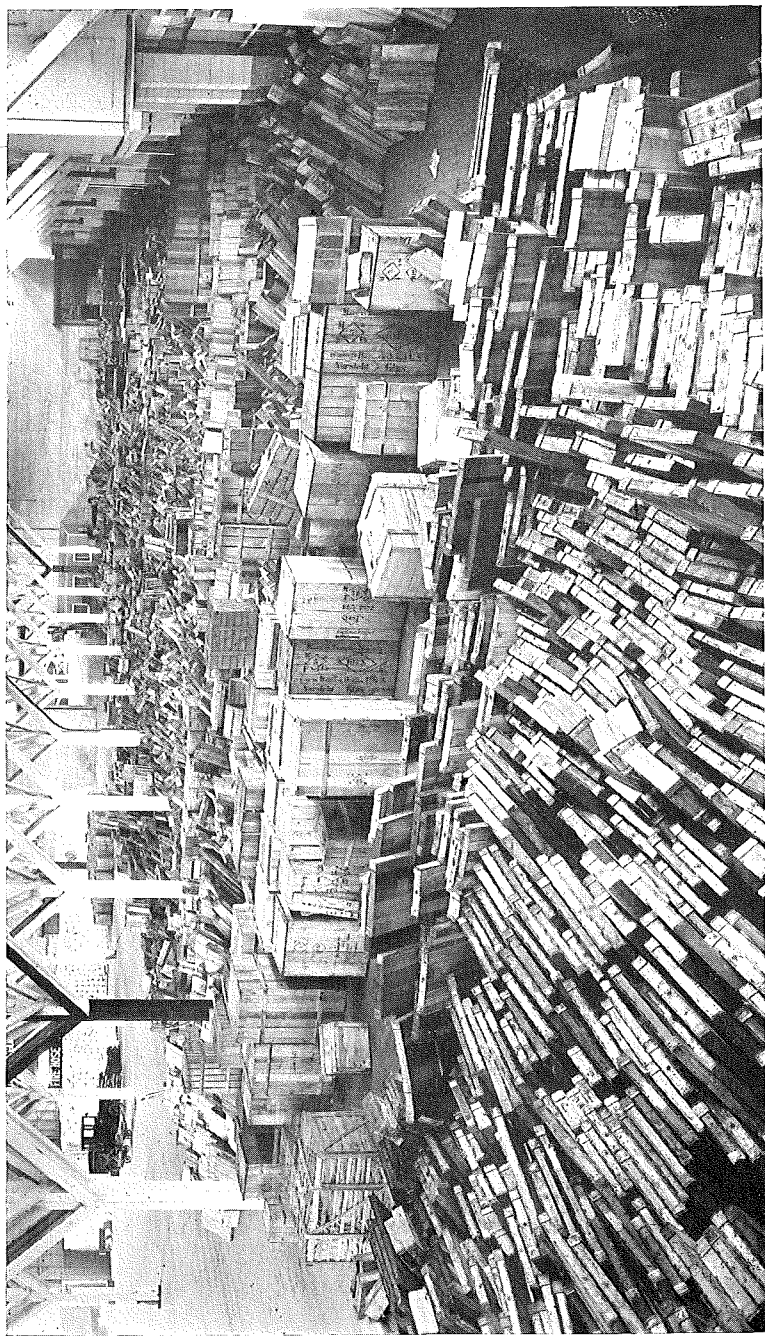
**Industrial Section:** The only industry which has been so far located on that portion of the terminal site set aside for industrial purposes, is the flour mill of 1500 barrels daily capacity, with adjoining warehouse. These structures are of reinforced concrete and are directly connected with Pier No. 1 by belt conveyor for delivery of the manufactured mill products for water shipments. This mill is expected to begin operations early in 1923, the output from it to be nearly entirely for export.

**Mechanical Cargo Handling Equipment:** In addition to the cargo masts or cargo hoists provided along the face of the transit sheds on Piers Nos. 1 and 2, there is available at this terminal one 15-ton and one 20-ton locomotive crane, switch engine with flat and dumpers, electric and gasoline tractors with trailers, electric elevators, freight piling and stacking machines and gravity and powered conveyors, to facilitate the handling, loading and unloading of cargo.

All structures at this terminal, with the exception of the grain elevator, bulk storage plant and the ventilated apple warehouse, are protected by automatic sprinkler systems and, in addition, all pier structures have concrete fire walls, at about 400 foot intervals, extending from low water to several feet above the shed roofs. The terminal has a large equipment of fire extinguishers, both hand and on wheels, fire hose, fire truck, etc., and a Fire Marshal is permanently employed to supervise fire prevention, fire control and fire fighting measures at all of the municipal terminals, where fire drills are regularly held on frequent occasions.

The approved plans for the development of Terminal No. 4 provide for the construction of five piers and three slips with a combined berthing length of 10,060 lineal feet, or the accommodation for seventeen 500-foot vessels at one time. As already stated Piers Nos. 1, 2 and 5 have been constructed and are in operation, leaving Piers Nos. 3 and 4 and Slip No. 2 still to be provided. In anticipation, however, of the construction of these piers in the near future, the Commission has constructed bulkheads and has made the necessary fills on these piers, so that everything is in readiness to proceed with this construction, when there is a demand for their use. There have, therefore, at this time been provided at this terminal pier construction with available berthing space of 5500 lineal feet and area under shed on these piers of 586,360 square feet.

dupli cate



IMPORT CARGO OF GLASS ON PIER NO. 1, MUNICIPAL TERMINAL NO. 4

Perhaps one of the most important and attractive features of this terminal is its railway system of about fourteen miles of tracks, which not only adequately serves all of the facilities already constructed there, but also provides storage accommodations for 250 to 300 cars additional, insuring constant supply of cars to vessels loading or discharging, all intra-plant switching being performed by the Commission by its own equipment. Such switching is available to vessels, day or night, requiring such service. Because of the magnitude of this terminal the transcontinental railroads of the port have established a joint railroad agency there, which handles all matters pertaining to billing and routing of the cars passing through this terminal.

**General:** At all of the municipal terminals vessels are supplied with city water at ship's side. The charge for supplying water to vessels is at the rate of \$1.00 for five thousand gallons or less, and for amounts in excess of five thousand gallons, 20 cents for each one thousand gallons.

For the accommodation of vessels berthed at Terminals Nos. 1, 2 and 4, facilities have been provided for connecting such vessels to the terminal light circuits, the charge for such service being based on meter consumption, and for the convenience of vessels berthed at Terminals Nos. 1 and 4 a number of telephones have been installed along the face of the transit sheds where they are available for the use of the ship's crew at any time.

**Dry Docks:** There are two floating dry docks in the port. That of the Port of Portland Commission, which was built about fifteen years ago, has a deadweight lifting capacity of 10,000 tons, capable of handling vessels up to 500 feet in length, is of the following dimensions:

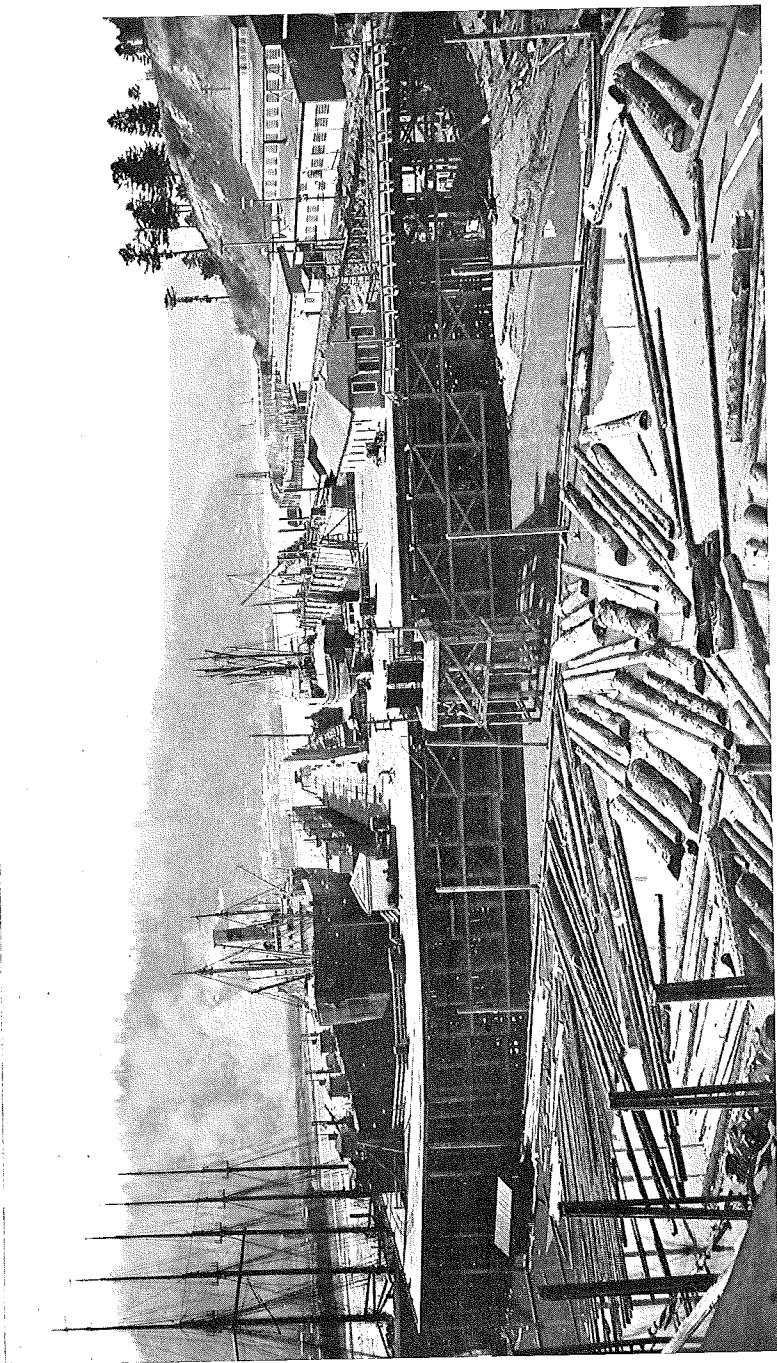
Length .....	468 feet
Width between wings.....	82 feet
Depth of water over keel blocks.....	25 feet
Number of pontoons.....	5

The second dry dock was built and is owned by The Commission of Public Docks and was placed in operation late in 1921. It has a deadweight lifting capacity of 15,000 tons and will handle vessels 525 feet long. Its dimensions are as follows:

Length .....	492 feet
Width between wings.....	94 feet
Depth of water over keel blocks.....	27 feet
Number of pontoons.....	5

In order, however, to centralize the ship repair work of the port and reduce expenses, both with regard to operation and the use of the extensive repair facilities which had already been installed by The Port of Portland Commission, the 15,000-ton floating dry dock

479



DRY DOCK PLANT OF PORT OF PORTLAND

Dock Commission's 15,000-ton Dry Dock at left, Port Commission's 9,000-ton Dry Dock at right

berth was placed alongside the other dry dock, and the combined dry dock plant, under agreement, operated by The Port of Portland Commission. The two dry docks are available to vessels and contractors on equal terms. The Port of Portland Commission does not do repair work on vessels, and the contractor or the ship must hire and pay for the mechanics used on repair work direct. The dry dock plant includes derricks of 15 and 20 tons capacity and locomotive cranes are available for lifting propellers, tail shafts, etc. Dry dock shop facilities include air compressors, drills, forges, lathes, shapers and other tools, with compressed air for operating air tools and electricity for operating electric tools. The rates for use of tools, etc., are established by tariff.

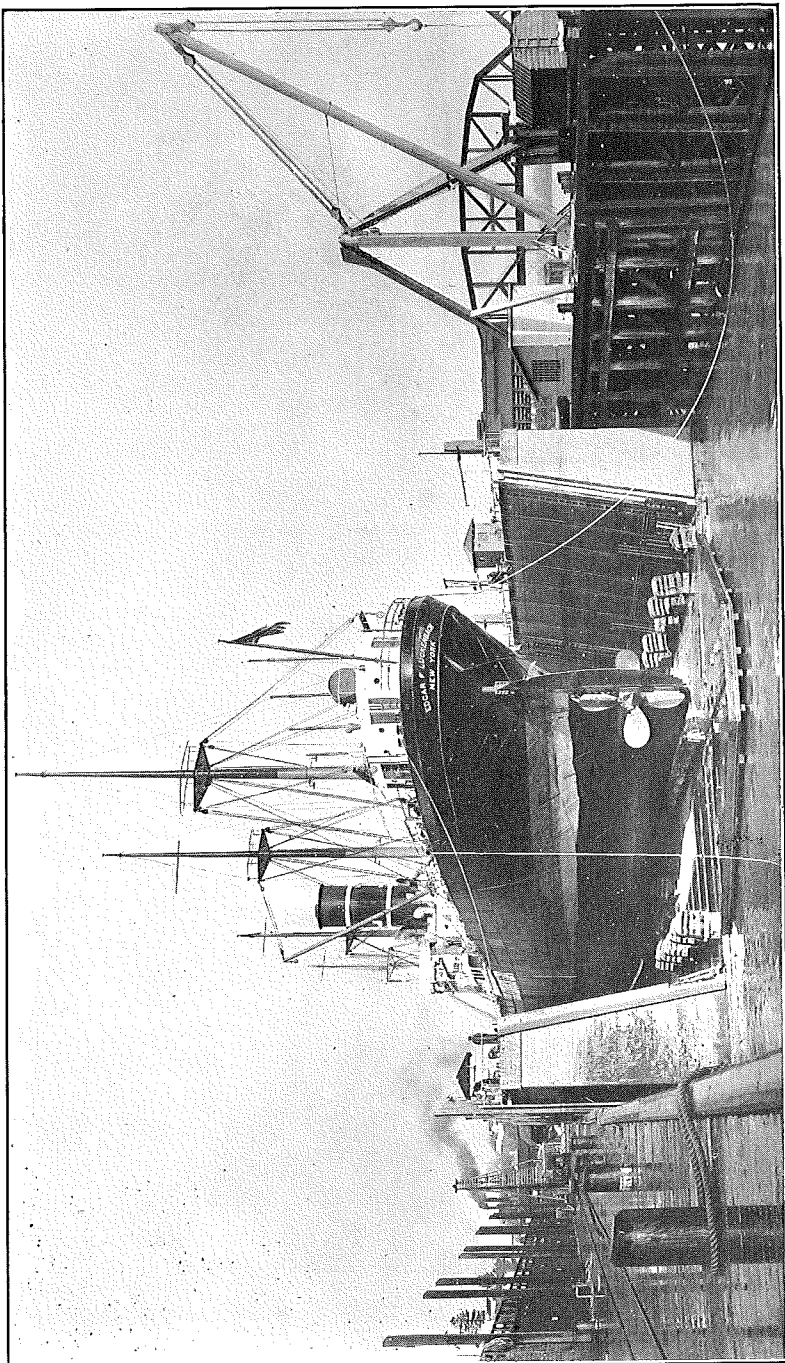
The Commission of Public Docks constructed its 15,000-ton floating dry dock at a time when there was an urgent need for this additional facility in the port and has kept it in operation since its completion, but as it was felt that its continued operation could be best served by disposing of it to the Port of Portland Commission, negotiations have for some time been under way to dispose of it to that body, and it is expected that all details connected with such transfer will be concluded early in 1923. With the proceeds from the sale of this dry dock it is believed the Commission of Public Docks will have available sufficient construction funds for the more immediate facilities needed during the next fiscal year to properly handle the port's rapidly increasing commerce, without having to call on the electorate of the City to authorize another bond issue to care for next year's construction program.

In anticipation of such funds being soon available, the Commission has, as stated elsewhere, secured an option on a tract of waterfront property North of and adjoining Pier B of Terminal No. 1, on which the Commission contemplates constructing a pier—Pier C—569 feet long and 207 feet wide, with a transit shed 547 feet long and 172 feet wide and a slip, the full length of the pier, 120 feet wide.

In the construction of this new pier an additional berth will be provided along the harbor face of Piers B and C, 471 feet long, thus greatly increasing the facilities at this terminal, and it is expected that when Pier C has been completed the Commission will be in position to handle the shipping using Terminal No. 1 with much greater despatch and free from the congestion which obtained during a considerable period in 1922.

**Handling and Shipment of Apples:** Prior to the 1921-1922 season, when 447,000 boxes were shipped to the Atlantic Coast and Europe, by the all water route, a comparatively small amount of fresh fruit had been exported from this port or the Pacific Northwest. The facilities available and used for this movement were furnished at Terminal No. 4, where the transit shed on Pier No. 2, 166 feet wide

duplicate



S. S. EDGAR F. LUCKENBACH UNDERGOING REPAIRS ON 15,000-TON MUNICIPAL DRY DOCK

and 715 feet in length was just about of sufficient capacity to accommodate this heavy shipment of apples, which, fortunately, was assembled in about the right sequence for the vessels scheduled to carry away this accumulated cargo. The season's business was despatched, however, without undue congestion or delay.

The climatic conditions were also exceptionally favorable during the entire apple shipping season, temperatures being generally considerably below normal. During a rather severe cold spell which continued for a period of nearly two weeks, it was possible to maintain by artificial heating, a temperature above 30 degrees throughout the transit shed. While this arrangement was somewhat of a makeshift, all apple shipments from this port were, later, reported to have arrived at destination in most excellent condition.

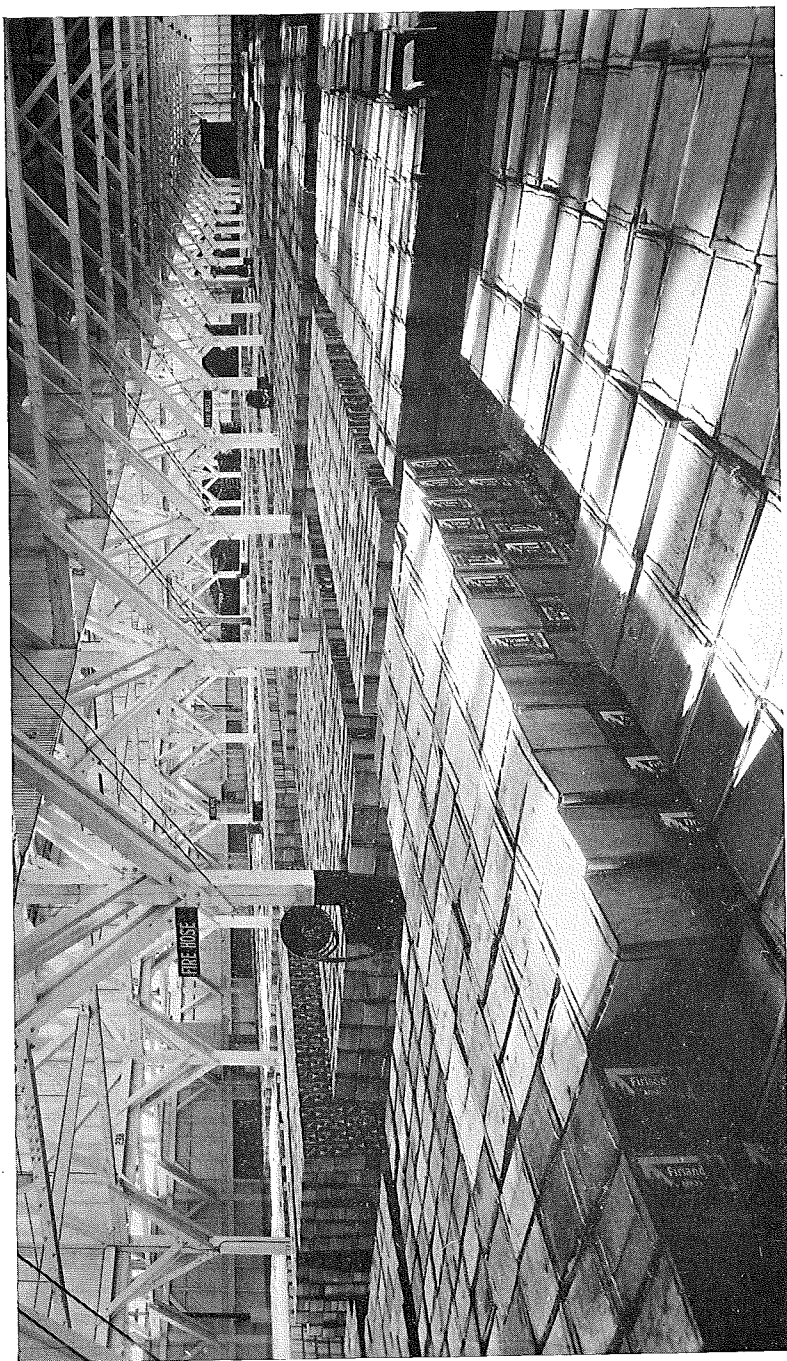
With every assurance, however, that shipments of apples by water from Pacific Northwest ports was to be of a permanent nature and, undoubtedly, in a constantly increasing volume, The Commission of Public Docks, after the close of last season's business, began to look into the matter of providing facilities more suitable and adequate for caring for this important product of the port's tributary territory. Numerous conferences were held with growers, shippers and others to obtain all possible information as to the best means of handling future and greatly increased apple shipments through this port.

Cold storage and ventilated warehouse facilities were discussed and consideration given the two propositions from the standpoint of cost and utility, having in mind the seasonal nature of the apple movement through the port and the fact that, as a general proposition, of the apples sent to this port for shipment through Terminal No. 4, storage space is required for but a comparatively short period, assembling of this cargo being usually done to coincide approximately with the arrival of vessels for which the apples are booked. The shipping season begins late in October and ends in March.

The Commission's conclusions regarding the additional and improved facilities which at this time were deemed as most urgently needed and which the Commission could construct with funds at its disposal, and which would give apple growers and shippers the service they required, was the provision of a special ventilated apple storehouse, of a type somewhat similar to those in use in many of the apple growing districts of the Pacific Northwest, but constructed along more permanent lines and with improved ventilating features. Ventilating storehouses of this character have been widely recommended by the United States Department of Agriculture and seems to have been very successful, according to experience of actual users.

Investigation and research work by the department of agriculture and private concerns into the life conditions of fruits in storage have clearly demonstrated that the controlling factors in such storage

done



TYPICAL APPLE CARGOES FOR EXPORT ASSEMBLED AT MUNICIPAL TERMINAL NO. 4

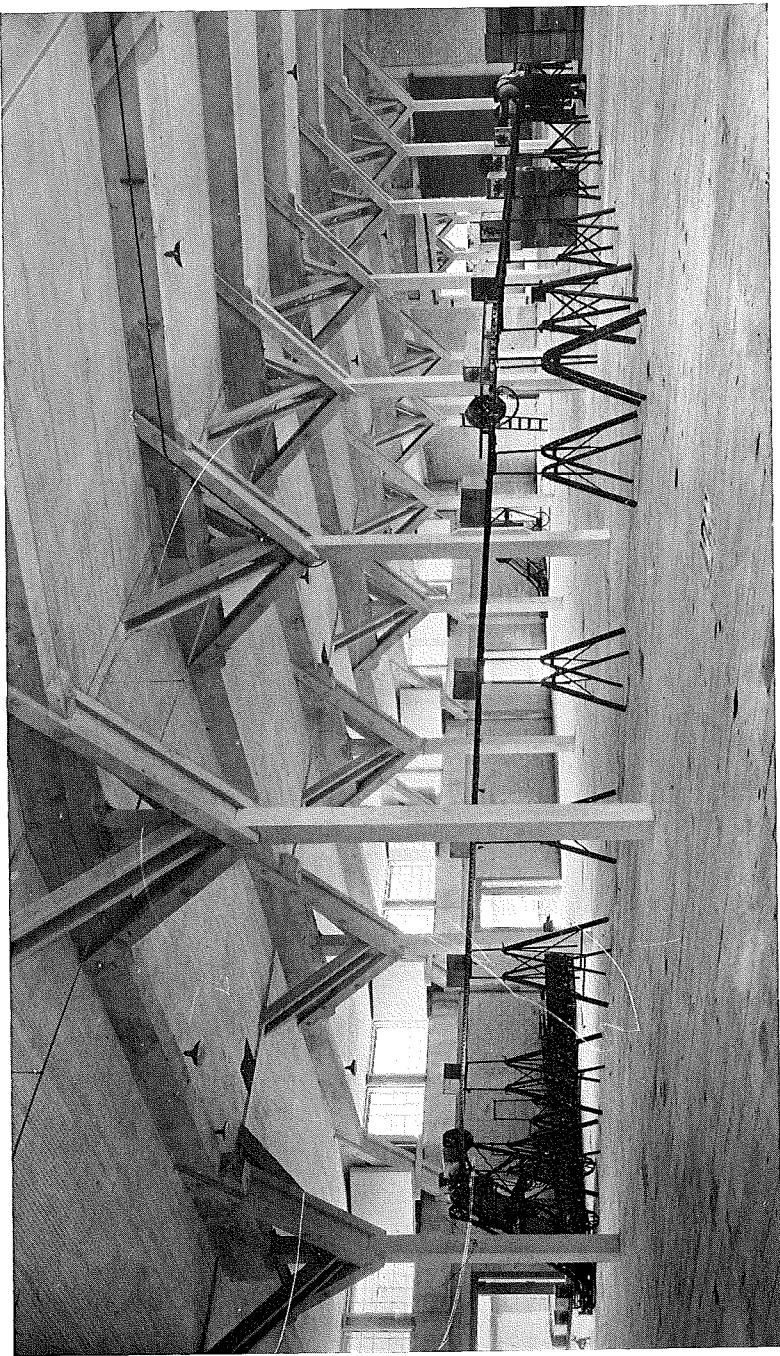
conditions are temperature, humidity and ventilation. The particular function of temperature is to control the rate of respiration, which, in turn, controls the time of maturity, and that of humidity is to prevent shrinkage and shriveling which, again, has an important bearing on maintaining the freshness and flavor of the fruit. These investigations also show that the continuous introduction of fresh outside air properly, modified as to humidity and temperature is also of great importance in holding fruits in their original condition as to freshness and flavor, theory as well as practice being in agreement that if the air changes are arranged with proper frequency the surface of the fruits can be kept dry, and rot and mould avoided.

The ventilated apple storage warehouse at Terminal No. 4 was constructed with these objects in view and it is believed that, with this type of construction, it will be possible to successfully regulate the change of air in the storehouse and to maintain, with reasonable limits, a temperature, within each or all of the three sections of the storehouse, which will successfully handle all transit shipments of apples through this terminal, for export.

While this apple storehouse was not completed in time to handle much of the season's shipments, arrangements have been made to store therein several carloads of apples for an extended period after the present shipping season, during which time careful investigation will be conducted relative to the performance of this ventilated storehouse, with particular reference to temperature, humidity and ventilation effect on the keeping qualities of apples held in storage for more or less extended periods. The results of this investigation will, no doubt, be of great interest to next season's movement of apples through the port. It is expected the present season's shipment of apples will reach the total of close to 900,000 boxes.

As a matter of interest, it may be stated that the port draws its apple shipments from a very extensive territory which includes the states of Oregon, Washington and Idaho. To the South the territory includes Willamette, Umpqua and Rogue River Valleys and the Columbia Basin country, the Hood River, Mosier, The Dalles, White Salmon, Lyle, Underwood, Spokane and Lewiston districts. The destination of apples for the Atlantic Coast is mostly New York, and for Europe, Glasgow, Liverpool, Southampton and London.

For many years it has been nearly universally recognized and during the last 10 or 15 years fully demonstrated, that the principal governing factor in the upbuilding and development of a port, for the successful accommodation of its shipping, is the provision of municipally owned and operated terminals, supplementing rather than replacing existing private facilities, for private capital cannot be expected to make the necessary outlay for the modern and expensive terminals at this time demanded by shipping and absorb



INTERIOR VENTILATED WAREHOUSE FOR APPLE STORAGE, MUNICIPAL TERMINAL NO. 4. COMPLETE POWER AND GRAVITY CONVEYOR SYSTEMS ARE PROVIDED FOR THE ECONOMICAL HANDLING OF CARGOES

a loss while commerce is being built up, because private operators must show a commensurate early profit and not the prospect of ultimate profit on the investment. No terminals, as a rule, are profitable in themselves and their expense must be a charge on the entire district to which they belong. Only in this way can there be definite assurance that proper facilities will be available, and, as must often be the case, in advance of actual requirements.

In the case of Portland, as the metropolis and commercial center of the State, there rested certain obligations which she had to assume and which she could not delegate to others. Being the principal seaport and the gateway through which the greater portion of the commerce of the State must pass, Portland had to see to it that the necessary facilities and means of transportation were at all times available to adequately care for this business, as well as that of her tributary territory.

The financial problems Portland has so far assumed may seem large, but it is certain time will show the investment made to be insignificant as compared to the benefits in increased business, greater commercial prestige and the expansion of all of the City's activities.

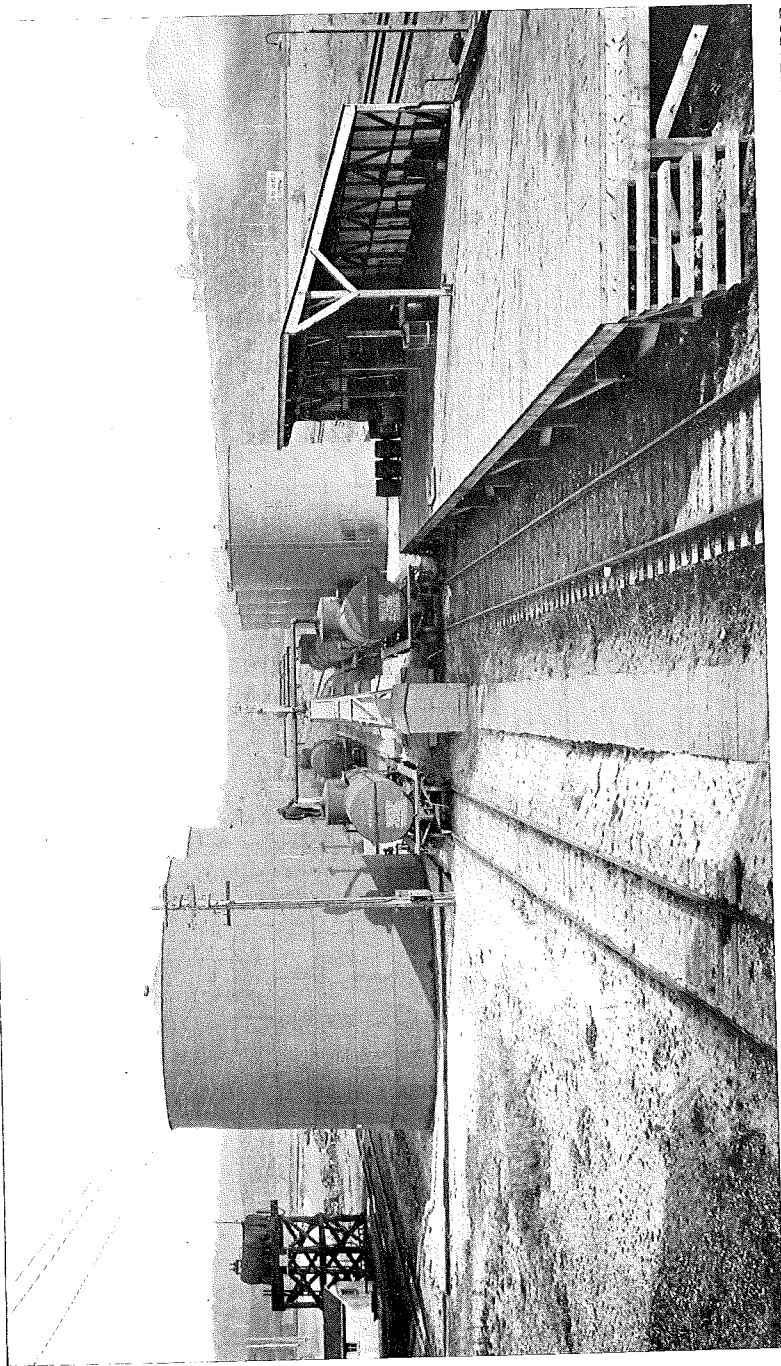
With the funds placed at the disposal of the Commission, terminal facilities have, naturally, been provided for the accommodation of the port's varying classes of shipping—foreign, intercoastal and coastwise—but it is evident that the more important function of the Commission, in this respect, was with reference to proper and adequate facilities required in serving the port's foreign business, which, because of its very competitive nature, required the most careful attention to insure economy and despatch in the handling of vessels engaged in this trade. At Municipal Terminal No. 4, it is believed, all these essential requirements have been fully met, not only for present needs, by construction so far undertaken, but also as to future demands by easily accomplished expansion of present facilities, in accordance with the comprehensive layout of this extensive terminal.

For the intercoastal business, mostly handled at the municipal terminals, which witnessed so enormous a growth during the year, the Commission has provided facilities which, while at times congested, have fully cared for this commerce, but which, from present outlook, and as already referred to, will require further expansion, and more particularly to accommodate the handling of the constantly increasing products and manufacture of the port's trade territory.

The coastwise steamers making the port are handled both at private and public docks, and to a greater extent at the former.

For the handling of grain the 1,000,000-bushel elevator and Pier No. 1, Terminal No. 4, furnish the best equipped facilities on the Pacific Coast. That the method of handling grain nearly exclusively

duroite



AT MUNICIPAL TERMINAL NO. 4 A VERY COMPLETE PLANT IS PROVIDED FOR THE HANDLING AND STORAGE OF VEGETABLE OILS AND MOLASSES, INCLUDING PIPE LINES, TANK SCALES, PUMPS, STEAM PLANT, TANK CAR CLEANING FACILITIES, ETC.

in bulk is fast becoming the custom of the port has been well demonstrated during the first half of this current cereal year, except for parcel shipments, and this is further evidenced by the fact that two of the largest exporters have recently installed, on their docks, improvised facilities for delivering bulk grain to vessels.

Recent investigations and tests made by local representatives of the U. S. Department of Agriculture, show that the unloading of sacked grain from cars requires twelve times the labor used in unloading the same quantity of bulk grain. These tests also showed that the labor of unloading sacked grain from a railroad car and piling the sacks in the pier shed is four times as much as the labor of unloading and placing in bins in the elevator an equal quantity of bulk grain. These tests were conducted at Terminal No. 4.

The chief advantages of bulk handling are the saving in the cost of handling, the elimination of the cost of sacks, the prevention of waste from leaky sacks, the ease and accuracy of inspecting the grain and the convenience with which bulk grain can be conditioned and cleaned. As the time and labor on the farm are even more striking, the producers are more and more working toward the bulk handling system.

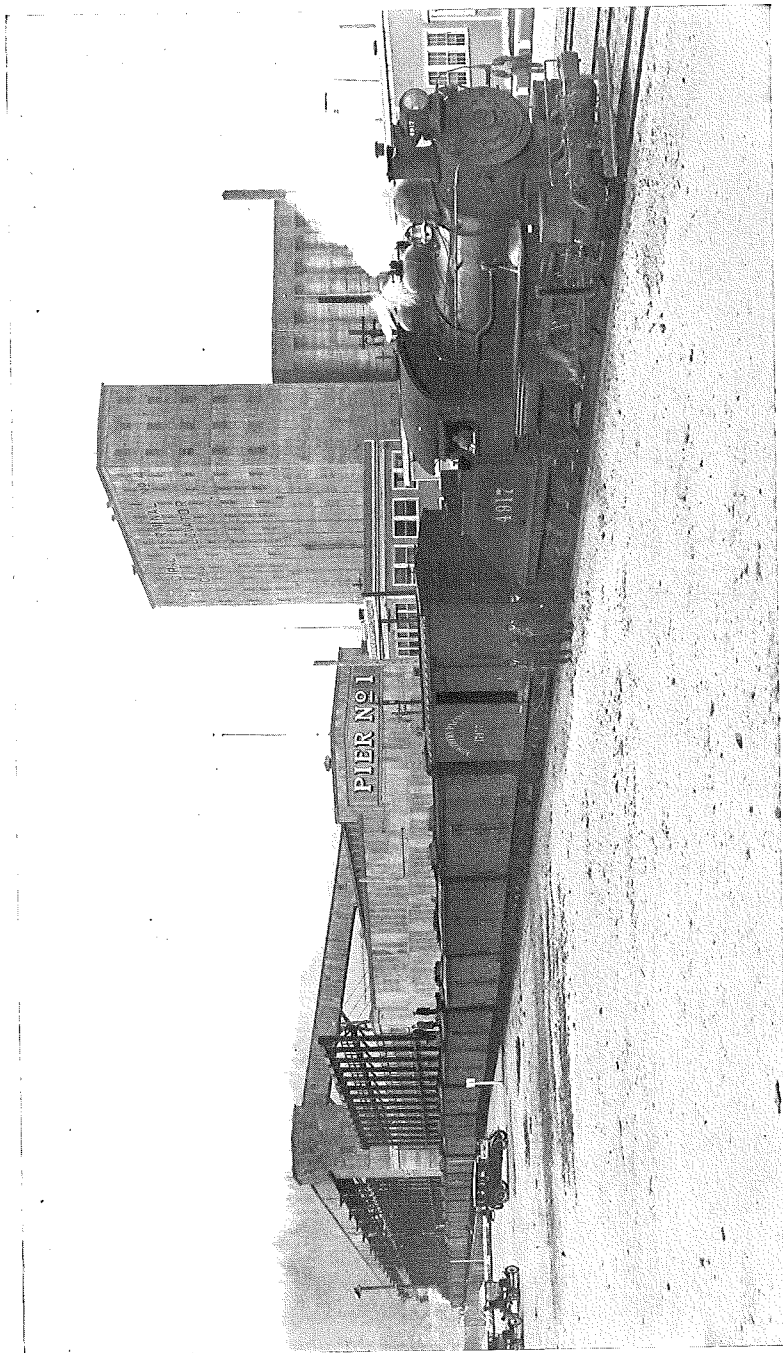
The importation of vegetable oils from the orient in large quantities appears promising for 1923 and at the modern facilities installed at Terminal No. 4, this commodity is handled in a most expeditious way. These vegetable oils are mostly for Eastern importers.

Molasses from Hawaiian Islands, for local distribution, has, for several years, been a steady business, and it is expected that it will continue firm during 1923.

It also appears at this time that there will soon develop an export movement of phosphate rock, which is handled at the large bulk storage plant on Pier No. 5—Terminal No. 4.

While the importation of Oriental cotton to the Pacific Coast has been limited during the last few years, there is evidence of a resumption of this commodity on a larger scale and in order to care for this import the Commission is taking steps to have installed a fumigating plant at Terminal No. 4, of a capacity of 250 bales per day. This plant will be in operation early in March, 1923.

Except for the construction program carried on during the year, probably the most important work done by the Commission, in the interest of the shipping of the port, was the attention given to the operation of the municipal terminals in the matter of furnishing the best possible service to steamship lines at lowest possible expense to the terminals. For this purpose the Commission introduced, wherever practicable, mechanical labor saving devices to reduce the cost of all services which are performed by the Commission in handling cargo, and also provided certain equipment which could



SOLID TRAINLOAD OF SHELLLED PEANUTS LEAVING TERMINAL NO. 4 FOR EASTERN POINTS



PIER NO. 5 WITH BULK STORAGE PLANT, MUNICIPAL TERMINAL NO. 4. THE VIEW IS TOWARD THE HARBOR WITH SLIP NO. 3 TO THE RIGHT, SULPHUR CARGO BEING DISCHARGED ON THE PIER BY LOCOMOTIVE CRANE WITH CLAM SHELL BUCKET

be used jointly to the advantage of both the Commission and stevedoring firms and for the use of which the latter are assessed certain charges, established by tariff. This equipment, used principally by the Commission, consists of gravity and powered conveyors for unloading from cars apples, prunes, case goods, flour and many other commodities, doing away with the more expensive hand trucking. By the use of these conveyors the commodities referred to can be transported long distances on the piers and docks and deposited in most convenient places for delivery to vessels, at minimum expense. These conveyors are also utilized for delivering certain commodities from pile of rest on dock or pier to ship's slings.

The use of gasoline and electric tractors, with trailers, has greatly increased at Terminals Nos. 1 and 4, several stevedoring firms having practically discarded hand trucks, both in loading and discharging vessels. Their usefulness has been more clearly demonstrated during the congested cargo conditions, which existed there during the year, and they have been the means of giving quick despatch to vessels.

Another important problem which the Commission was confronted with during the year was the regulation of the proper and economical piling and stowage of incoming and outbound cargo at the municipal terminals to conserve space, minimize congestion, expedite the quick turn around of vessels and the convenient delivery of goods consigned to local concerns. After several months of persistent work along these lines, and the cooperation of the steamship lines, this problem has been satisfactorily solved and a port practice established which will greatly increase the efficiency of the terminals, to the benefit of both the port and the steamship lines. To assist in quickly clearing the terminals of cargo, the free time on inbound intercoastal freight was reduced from 10 to 5 days.

While congested shipping conditions have existed at nearly all Pacific Coast terminals for a considerable time, handling of the general cargo movement was really a more serious problem at this port, because of the proportionally less facilities available here, as compared with other ports, in the volume of business handled, but notwithstanding this handicap, at no time was it necessary for any vessel to come to anchor and await its turn to obtain a berth.

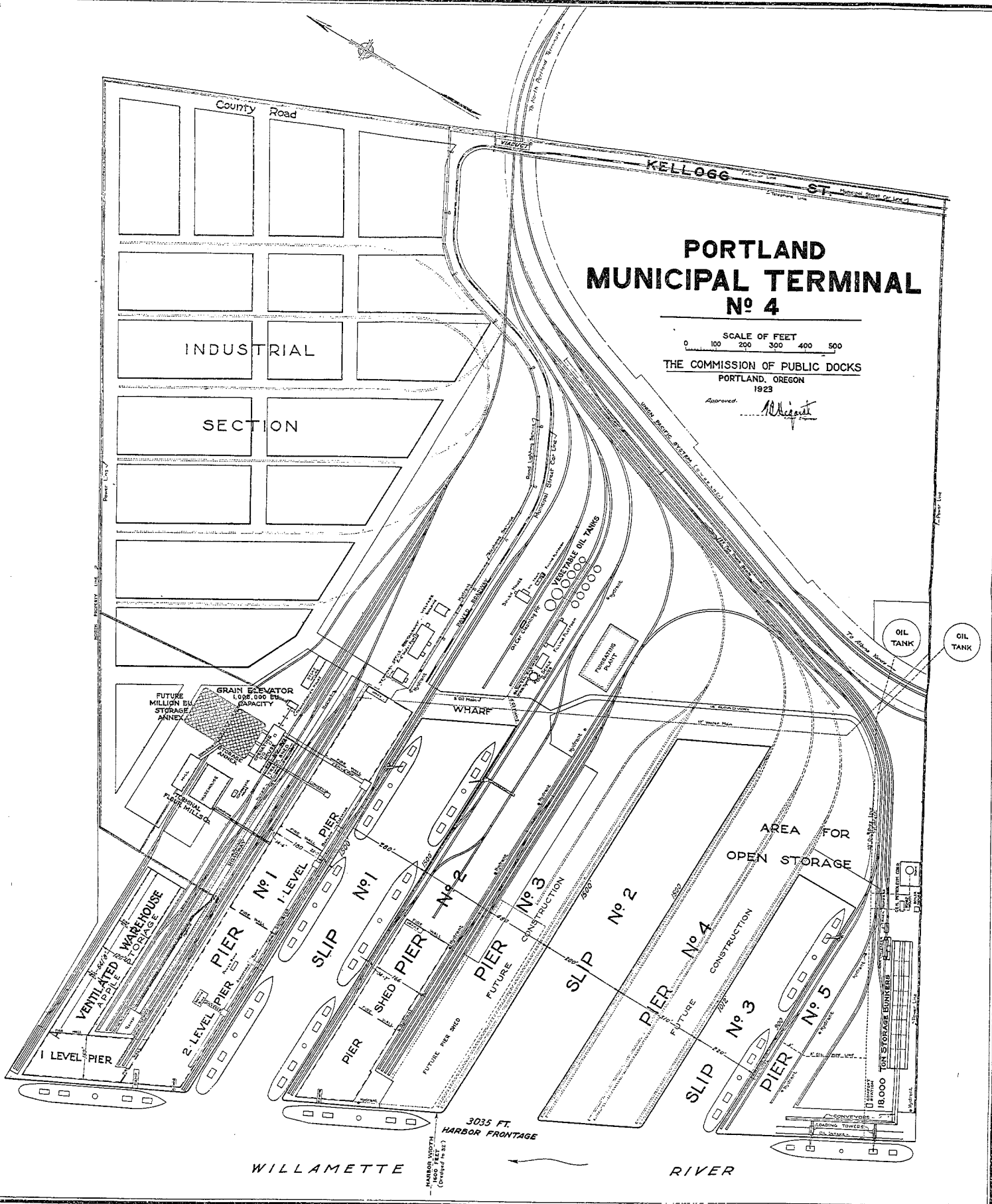
As the Commission sees it at this time, the two greatest essential factors in the immediate and future growth of the City are harbor expansion and adequate equipment to quickly and economically handle its rapidly growing world trade, and, in this connection the ever present question of what may constitute fair rates of charge to the public for the use of the facilities provided at public expense. It is evident that, as a basic principle, these should be placed on a permanent basis so as to pay, but, due to the necessity of keeping

# PORTLAND MUNICIPAL TERMINAL No 4

SCALE OF FEET  
0 100 200 300 400 500

THE COMMISSION OF PUBLIC DOCKS  
PORTLAND, OREGON  
1923

Approved: *W. H. H. H.*



such charges more or less on parity with those of nearby and competing ports, this is difficult of accomplishment. As most of these ports are facing similar problems, there is now an apparent disposition on the part of the port authorities affected to come to some sort of mutual understanding as to a more uniform terminal rate structure that will more equitably distribute the burden of operating the terminal facilities of the port, because, as is well known, the net income, after deducting administration and maintenance expense, is not commensurate with the investment made.

The joint traffic bureau which was established in 1920, under agreement between The Commission of Public Docks and The Port of Portland Commission, for the purpose of developing through and local waterborne traffic through the port, soliciting the establishment of foreign and local steamship service, has continued to maintain an Eastern traffic office in New York City and a branch office in Kobe, Japan. The headquarters of the traffic manager is at Portland, Oregon. Commencing with January, 1923, a representative will be sent into the South American territory and another to Australia and Straits Settlements, with head office in Singapore.

Expansion of trade in the intercoastal business has been one of the outstanding features of the past year. This business has been so attractive that several new lines have been placed on the run. While the claim has recently been made that the route is over-tonnaged, lumber shippers predict that more than one billion feet of lumber will be shipped to the Atlantic Coast in 1923, which, alone, will furnish cargo for a great many vessels. Due to the rate war which broke out last June, cargo from the Atlantic Coast is being handled at very low levels, and while it is expected that there will be an advance in these rates after the expiration of present arrangement or agreement, there is every indication that 1923 will be an active year in shipping.

One of the most important results of the Pacific Westbound conference held in Vancouver, B. C., in January, was the understanding reached between trans-Pacific and Panama Canal operators, whereby a parity of rates was established. Thus cargo moving through Atlantic terminals to the orient via the Panama Canal will pay the same rate as freight brought overland to Pacific Coast ports and then trans-shipped. Space to the Orient has shown a strong inquiry at the end of the year and Australian lumber business is still very active.

The California business is exceptionally brisk and shippers find difficulty in obtaining sufficient space. The shipping business, as a whole, therefore, looks very promising for the coming year.

483



MUNICIPAL TERMINAL NO. 4 VENTILATED WAREHOUSE FOR APPLE STORAGE AT THE RIGHT. PIER NO. 1 WITH ITS HARBOR  
EXTENSION TO THE LEFT

The port's shipping activities in the year 1922 was most satisfactory in every way, and the greatest in its history. At the close of the year the following steamship lines were maintaining regular service to the port:

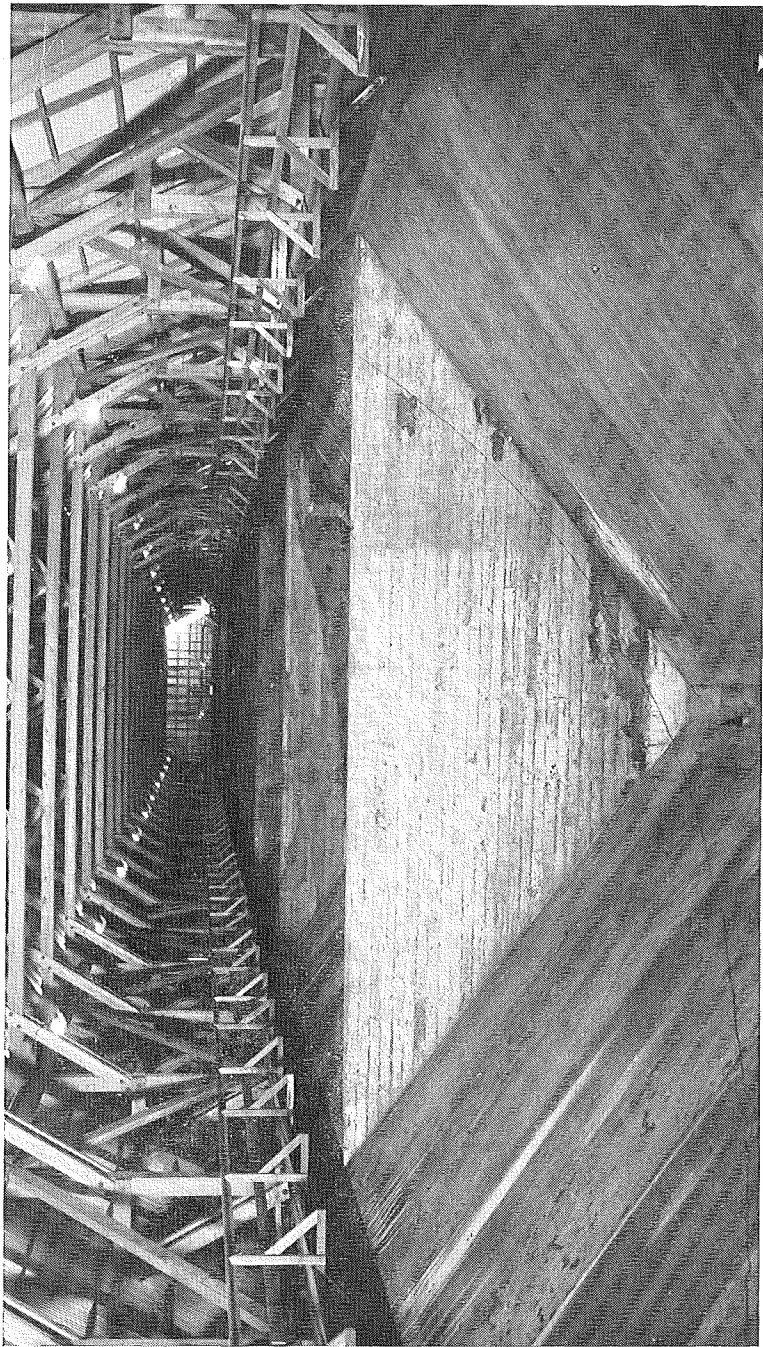
**Foreign and Intercoastal—**

North China Line  
South China Line  
American-Hawaiian S. S. Co.  
Toyo Kisen Kaisha  
Holland-America Line  
Royal Mail Steam Packet Co.  
Isthmian Line  
Ellerman's Wilson Line  
Yamashita Kisen Kaisha  
Pacific-Argentine-Brazil Line  
Suzuki & Co.  
"K" Line  
General Steamship Corporation  
Java Pacific Line  
Compagnie Generale Transatlantique  
Latin American Line  
Furness Prince Line  
Mitsui & Company  
North Atlantic & Western S. S. Co.  
Luckenbach Steamship Co. Inc.  
Crowell & Thurlow Line  
Pacific-Caribbean-Gulf Line  
Pacific Mail Steamship Co.  
Argonaut Line  
Costner, Curran and Bullitt, Inc.  
Garland Line  
Blue Star Line  
Munson Line  
East Asiatic Co.  
Norway Pacific Line  
Johnson Line  
Pacific Australia Line  
Grace Line  
Asiatic-American Steamship Co.  
Commercial Steamship Lines  
Elder Mittnacht Steamship Co.

**Coastwise—**

Admiral Line  
Ocean Motorship Co.  
McCormick Steamship Co.  
Columbia Navigation Co.  
Charles Nelson Line  
San Francisco & Portland Steamship Co.

In addition there is a steady tramp steamer service which handles a considerable proportion of local products, such as grain, flour and lumber.



INTERIOR OF STORAGE BUNKERS OF BULK STORAGE PLANT AT PORTLAND MUNICIPAL TERMINAL NO. 4  
The Bunkers Are of Reinforced Concrete Construction

During the year 1922 a total of 1160 ocean going vessels of a net registered tonnage of 3,151,636 entered and 1177 vessels of a net tonnage of 3,175,523 cleared from the port. In 1921 these figures were 909 vessels of 2,525,383 net tonnage entered and 904 vessels of 2,554,896 net tonnage cleared, an average increase of about 24 per cent. Sixty-four per cent of the seagoing vessels which entered the port in 1922 were accommodated at the municipal terminals, or 739 vessels. In 1921 the number was only 447.

An important addition to the shipping of the port will be inaugurated early in 1923, when United States Shipping Board will place three of the "502" type of combined passenger and freight steamers on the East Coast of South America run, with monthly sailings. Three Liners, the PRESIDENT HAYES, PRESIDENT HARRISON and the SUSQUEHANNA.

Detailed shipping statistics for the fiscal year 1922 and several previous years, of commodities and foreign and domestic imports and exports, are given in appendixes of this report, from which comparisons are here made of the principal items as of 1921 and 1922.

From ocean going vessels, 692,509 tons of cargo was handled over the municipal terminals during the fiscal year, an increase of 104 per cent as compared with 1921.

With reference to the port itself, the following statistics of the principal commodities are given for the years 1921 and 1922:

**Apples:** 1921—304,000 boxes; 1922—623,238 boxes, an increase of 105 per cent.

**Prunes** 1921—no record available, but the amount was very small; 1922—15,627 tons or 1,041,763 boxes.

**Lumber—Foreign:** 1921—174,170,000 ft. B. M.; 1922—239,904,839 ft. B. M., an increase of 38 per cent.

**Lumber—Domestic:** 1921—39,727,000 ft. B. M.; 1922—96,241,432 ft. B. M. an increase of 142 per cent.

**Wheat—Foreign Exports:** 1921—37,240,987 bushels; 1922—23,601,755 bushels.

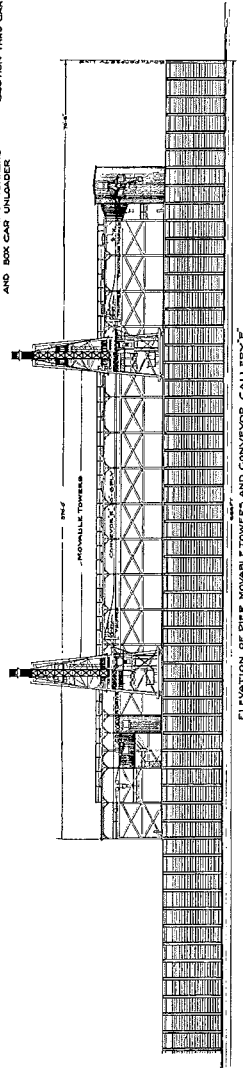
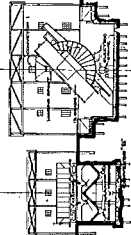
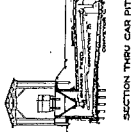
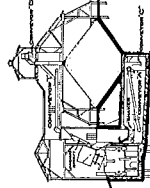
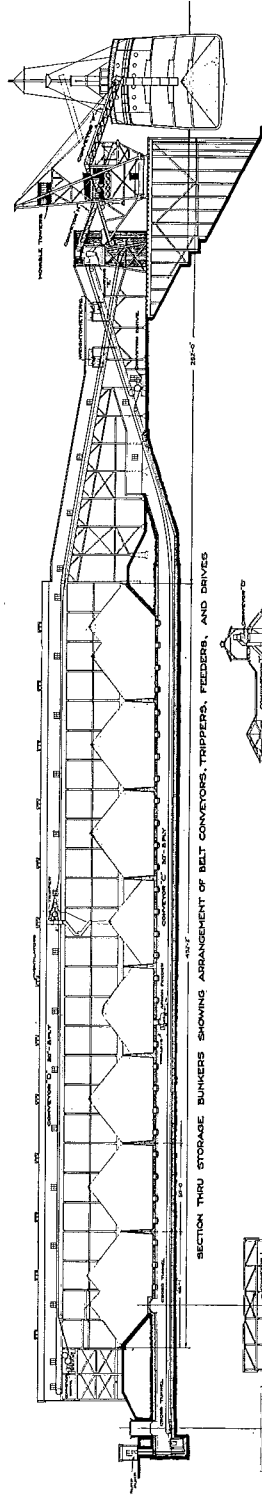
**Wheat—Domestic Exports:** 1921—207,169 bushels; 1922—45,125 bushels. Decrease in foreign exports 36 per cent—decrease in domestic exports 78 per cent, for 1922.

The wheat crop of the Northwest was about 35 per cent less in 1922 than 1921, which accounts for the decreases in 1922. In 1921 Portland was the second largest wheat exporting port in the United States, Galveston being first.

**Flour—Foreign Exports:** 1921—1,296,041 barrels; 1922—1,102,614 barrels.

**Flour—Domestic Exports:** 1921—507,624 barrels; 1922—550,707 barrels.

Decrease in foreign flour exports 14 per cent and increase in domestic flour exports 8 per cent.



# **BULK STORAGE PLANT PIER N<sup>o</sup> 5 PORTLAND MUNICIPAL TERMINAL N<sup>o</sup> 4**

SHOWING  
ARRANGEMENT OF CONVEYOR SYSTEMS, CAR  
UNLOADING DEVICES AND TOWERS FOR LOADING &  
UNLOADING SHIPS' CARGO

THE COMMISSION OF PUBLIC DOCKS  
PORTLAND, OREGON

Architect *Allyn & Smith*

SCALE OF FEET  
0 10 20 30

**Wool:** 1921—22,602,061 pounds; 1922—23,789,484 pounds, an increase of 5 per cent.

**Sulphur** 1921—7,695 tons; 1922—14,524 tons, an increase of 89 per cent.

**Vegetable Oils:** 1921—807 tons; 1922—4089 tons, an increase of 407 per cent.

**Copra Imports:** 1921—1542 tons; 1922—17,043 tons, an increase of 1005 per cent.

#### **Total Import and Exports of the Port—**

Foreign imports: 1921—31,962 tons; 1922—62,442 tons, an increase of 95 per cent.

Domestic imports: 1921—1,016,440 tons; 1922—1,456,019 tons, an increase of 43 per cent.

Foreign exports: 1921—1,656,702 tons; 1922—1,299,516 tons, a decrease of 21 per cent.

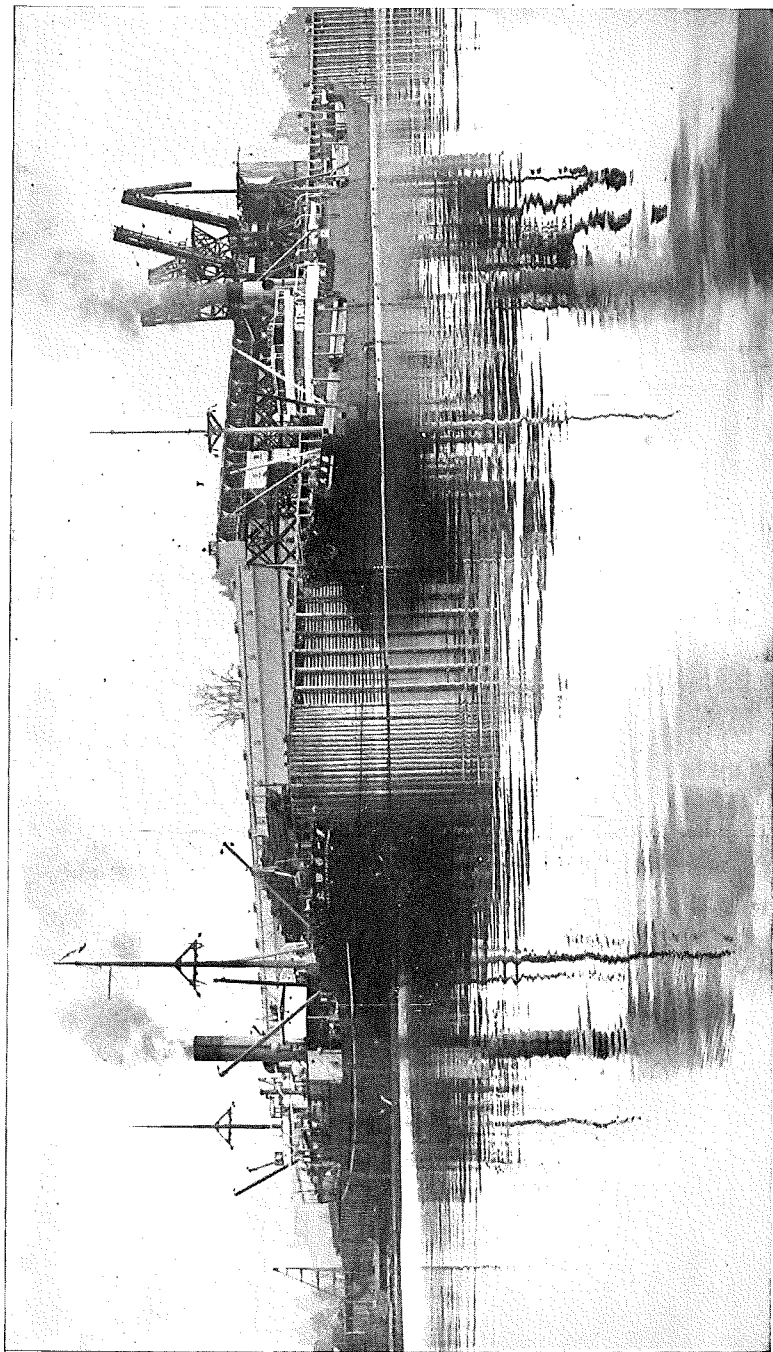
Domestic exports: 1921—334,810 tons; 1922—327,084 tons, a decrease of 2 per cent.

It is only a few years since this port had no modern terminal facilities and its shipping was not of sufficient magnitude for the port to get a fourth, or even a third class rating, among the nation's principal ports. With the splendid terminals provided by the City of Portland and the enormous growth of its waterborne commerce during the last three or four years, due to a very great extent to these modern terminals, Portland, in the fiscal year ending June 30, 1922, according to reports compiled by the United States Shipping Board, ranked as the second port of the Pacific Coast and the 11th in the entire United States, measured by volume of waterborne foreign commerce actually handled at the port, with 1,347,985 long tons; San Francisco was 10th with 2,298,372 long tons and Seattle 12th with 1,027,432 long tons.

The character of the foreign commerce by which Portland has gained its new rank, shows that much of the exports originated in its own territory. Lumber, grain, fruit, fish, etc., are the commodities which the port commands.

With reference to the tons of cargo which moved in foreign trade from the principal Pacific Coast ports, the following report from the United States Shipping Board, for the fiscal years 1921 and 1922, is illuminating:

	1921	1922	Increase tons	Increase per cent
Portland.....	962,318	1,347,985	385,667	40
Tacoma.....	251,971	347,214	81,243	32
Los Angeles.....	948,946	1,228,942	279,996	29.5
Astoria.....	123,407	148,858	25,451	20.6
Seattle.....	894,412	1,027,432	133,020	14.8
San Francisco.....	2,174,321	2,298,372	116,051	5.3



HARBOR VIEW OF PIER NO. 5, MUNICIPAL TERMINAL NO. 4, WHERE MODERN FACILITIES ARE PROVIDED FOR THE HANDLING OF BULK CARGOES

### HARBOR AND PORT

Portland is the same steaming distance from oriental ports as Puget Sound ports, and, like Philadelphia and New Orleans, approximately 96 nautical miles from the sea. The harbor of Portland is on the Willamette River, which flows into the Columbia River about 10 miles below the shipping center of the harbor, which has a width of 900 to 1600 feet between the established harbor lines. Within the City of Portland there is a harbor frontage of nearly 29 miles, and if extended to the confluence of the Willamette and Columbia Rivers, 37 miles. Of the City's waterfrontage of 29 miles, 6.75 miles of berthing space has been developed for the accommodation of shipping and industries, of which 1.80 miles is under municipal control; 3.04 miles for private general cargo, grain, lumber and fuel docks, etc., used for ocean commerce; and 1.85 miles for coastwise and river steamers, ship repair plants and industries. A least depth of 30 feet at low water exists throughout the harbor at all the municipal terminals and, with only a very few exceptions, at all private docks used in connection with deep sea shipping. The required harbor depth is maintained by the Port of Portland Commission.

**Channel Condition:** The entrance channel depth at the mouth of the Columbia River continues to show gratifying improvements, due to the extensive jetty works which were completed by the Federal Government in 1917. The United States Engineers' survey of June, 1922, showed that the natural scouring action of the outflowing waters, permanently controlled by the two jetties, is maintaining a low water channel depth of 43 feet for a width of approximately 5000 feet over the bar crossing which is only 4000 feet long, a much greater depth existing on either side of this crossing. The mean rise of tide is 7.5 feet, at the entrance, which is well supplied with aids to navigation, consisting of light ship, gas, bell and other buoys and range lights permitting uninterrupted navigation by vessels of the deepest draft at all times, day and night.

The Federal project for the improvement of the ship channel in the Columbia River, approved in 1912, was for a depth of 30 feet at low water, the dredged portions of the channel to have a minimum width of 300 feet, but at bends in the channel, or where other conditions required greater widths, this was to be increased to 500 or 600 feet. This project was completed several years ago and the improvement now being done to the channel is the maintenance of this project depth and the constant construction of permanent contraction works.

The United States Engineer Department has approved a project for a minimum ship channel width of 500 feet on straight courses, by dredging of this widened channel to a depth of 32 feet below low water, a depth of at least 30 feet at lowest possible stage in the Columbia River, will, then always be assured.

dupliated



BOX CAR UNLOADER OF BULK STORAGE PLANT ON PIER NO. 5,  
MUNICIPAL TERMINAL NO. 4

The improvement of the ship channel requires dredging to be done only in about one-fourth of the entire distance. Between the dredged portions of the channel, long stretches of much deeper water exists, up to 150 feet, where the width ranges from 1000 to 2000 feet, which afford frequent and convenient anchorage places where vessels may swing with the tide, without interference to navigation.

A further channel advantage is that the ordinary period of low fresh water flow and minimum navigable depths occur only during the months of September and October, but extend occasionally beyond this period. During the remainder of the year the Willamette and Columbia Rivers, at the mouth of the Willamette River, average 8 feet in height above datum, being highest during the freshet period, May to June, inclusive. The increase in depth due to fresh water flow diminishes to zero at the mouth of the Columbia River, where the mean tidal range is 7.5 feet. At low water stages in the river, there is a tidal effect of about 2 feet at Portland. The normal low water depth in the ship channel and along the docks and piers in the harbor may, therefore, be considered as at least 32 feet.

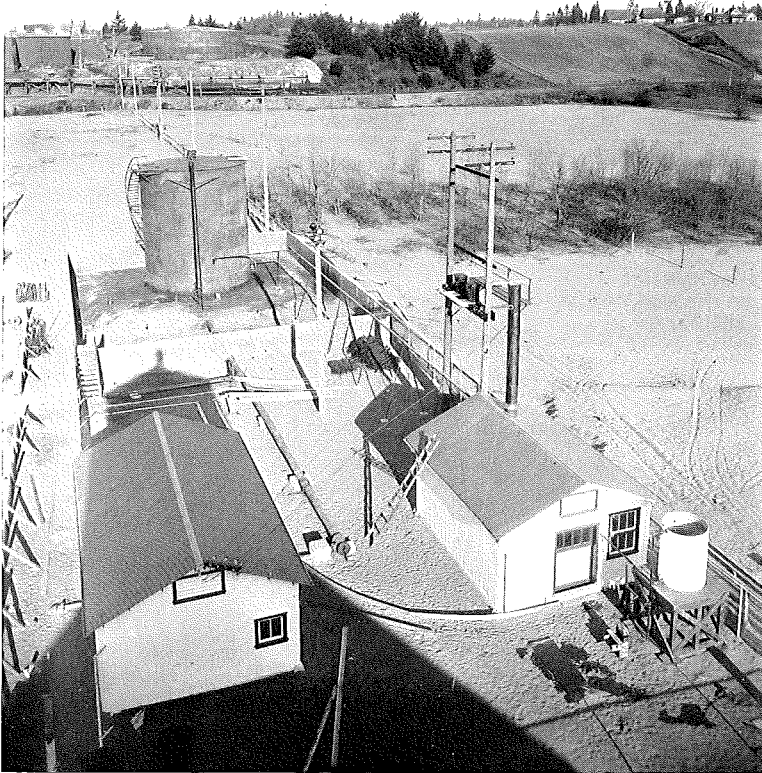
### PRIVATE WATERFRONT FACILITIES

As already noted, private interests have developed a considerable portion of the port's improved waterfrontage. As a general proposition it may be stated that the majority of these waterfront structures, those used in connection with deep sea shipping, were mostly constructed for a particular purpose, that of caring for the grain, flour and lumber trade, the principal commodities produced locally or in the port's tributary territory. These docks are well constructed and provided with the handling facilities best suited for the class of cargo passing over them and compare favorably with similar docks available at other Pacific Coast ports. For a better description of these facilities, they will be divided into four classes—General Cargo Docks, Grain Docks, Lumber Docks and Fuel Docks, excluding river steamers and industrial docks.

### GENERAL CARGO DOCKS

**Oregon-Washington Dock (Union Pacific):** Quay dock 580 feet in length with total cargo space under shed of 67,200 square feet and trackage for 28 cars. Mechanical equipment consists of an electrically operated escalator.

**Ainsworth Dock (Union Pacific):** Quay dock, 1000 feet in length, partly two-level, with total cargo space under shed of 139,000 square feet and trackage for 20 cars. Dock has adjustable ramps for side port loading and unloading.



THE GENERAL PETROLEUM CORPORATION'S PLANT AT MUNICIPAL TERMINAL NO. 4 IS LOCATED EAST OF THE BULK STORAGE PLANT ON PIER NO. 5.

The plant includes two steel storage tanks with combined storage for 110,000 barrels of fuel oil; 2,500-barrel measuring tank and pumping and heating facilities. A 10-inch pipe line extends from storage tanks to Pier No. 5, where connection to vessels is provided at both slip and harbor berths. Tank car loading spouts for 12 cars are also provided.

**Albers Dock No. 1:** Quay dock, 310 feet in length, partly two level, with a total cargo space under shed of 64,000 square feet and trackage for 6 cars.

**Albers Dock No. 3:** Quay dock 305 feet in length, partly two level, with total cargo space under shed of 79,200 square feet and trackage for six cars. Ample berthing space for this dock for large vessels by overlapping on Albers Dock No. 2.

**Couch Street Dock:** Quay dock, 260 feet in length, two-level, with total cargo space under shed of 47,300 square feet. Used only by the smaller type of coastwise vessels.

**Montgomery Dock No. 2:** Quay dock, 550 feet in length, with total cargo space under shed of 145,600 square feet and trackage for 33 cars.

**Supple's Dock:** Plant consists of two slips, each 310 feet long and 110 feet wide and one pier 310 feet long and 125 feet wide, covered with shed 100 feet by 295 feet.

#### GRAIN DOCKS (ALSO FLOUR)

**Portland Flouring Mills Dock:** Two-level quay dock, 560 feet in length, with total cargo space under shed of 86,000 square feet and trackage for 40 cars.

**Pacific Coast Elevator Dock:** Quay dock, 560 feet in length, with total cargo space under shed of 58,000 square feet and trackage for 30 cars.

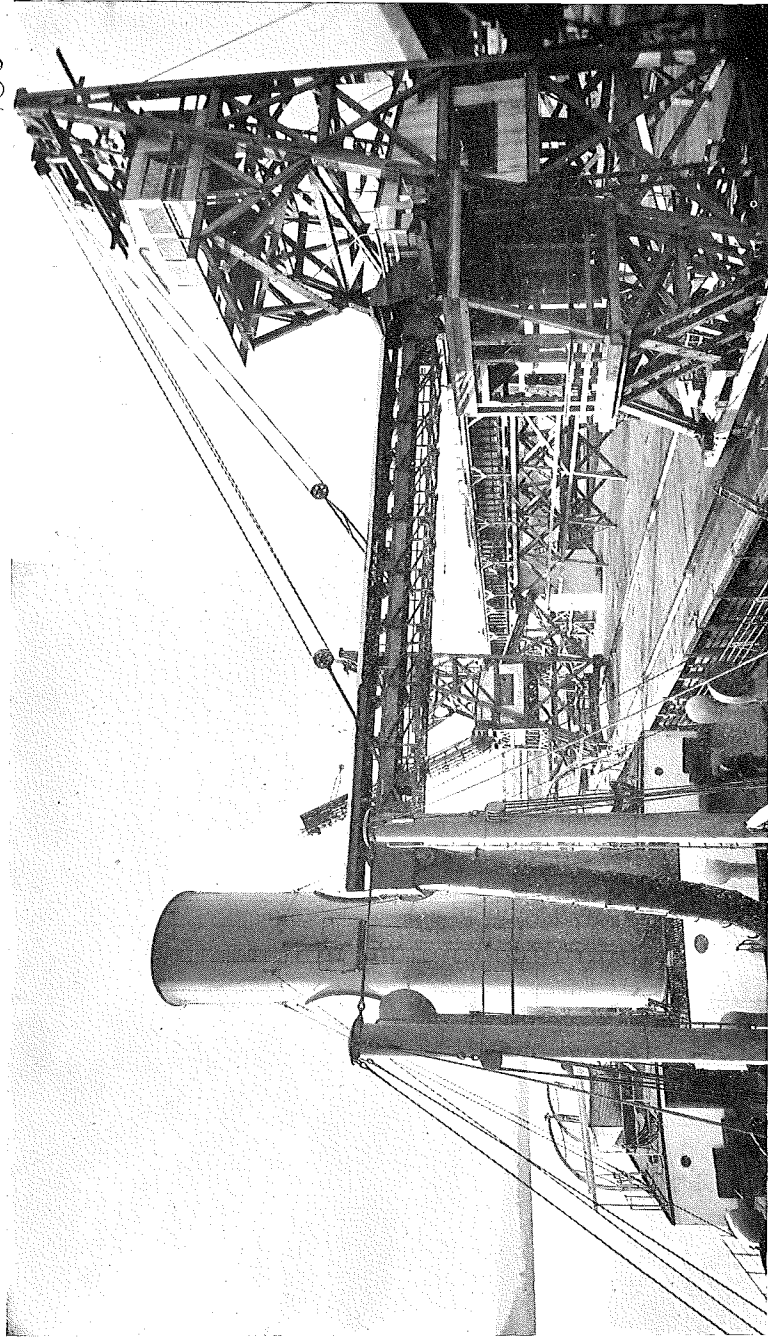
**Albina Dock:** Quay dock, 775 feet in length, with total cargo space under shed of 66,700 square feet and trackage for 30 cars.

**Spokane, Portland & Seattle Railway Dock:** Quay dock, 1000 feet in length, two-level, with total cargo space under shed of 304,200 square feet and trackage for 150 cars. One fourth of this dock is usually classed as general cargo, although a larger section may be used for this purpose. Dock is provided with power ramps and conveyors.

**Crown Mills Dock:** Two-level quay dock, 400 feet in length, with total cargo space under shed of 71,000 square feet and trackage for eight cars.

**Mersey Dock:** Two-level quay dock, 325 feet in length, with total cargo space under shed of 83,300 square feet and trackage for eight cars.

**Albers Dock No. 2:** Two-level quay dock, 178 feet in length with a total cargo space under shed of 41,200 square feet and trackage for eight cars. Ample berthing space at this dock for large vessels by overlapping on Albers Dock No. 3.



HARBOR VIEW OF PIER NO. 5, MUNICIPAL TERMINAL NO. 4, SHOWING TRAVELING CONVEYOR TOWERS DELIVERING BULK CARGO FROM BULK STORAGE PLANT

**Columbia Dock No. 1:** Two-level quay dock, 355 feet in length, with a total area under shed of 95,600 square feet and trackage for eight cars.

**Irving Dock:** Quay dock, 400 feet in length with total cargo space under shed of 101,000 square feet and trackage for 10 cars.

**Globe Milling & Elevator Dock:** Two-level quay dock, 380 feet in length, with total cargo space under shed of 66,500 square feet and trackage for 32 cars.

These private general cargo and grain docks of the port have a combined capacity of 262,000 tons of cargo at one time.

#### PRIVATE GRAIN ELEVATOR

**Kerr-Gifford Company:** Elevator of fireproof construction, has a capacity of 250,000 bushels of bulk grain, with ship loading facilities. The grain docks are provided with cleaning facilities and electrical conveyors for delivering sacked grain and flour to vessels.

#### LUMBER DOCKS

**West Oregon Lumber Company Dock:** Quay dock, 370 feet in length and 134 feet in width.

**Beaver Linnton Mills Co. Dock:** Quay dock 300 feet in length and 75 feet in width.

**St. Johns Lumber Company Dock:** Quay dock 670 feet in length and 90 feet in width.

**Clark & Wilson Lumber Company Dock:** Quay dock 980 feet in length and 90 feet in width.

**Peninsula Lumber Company Dock:** Quay dock 1012 feet in length and 125 feet in width.

**North Pacific Lumber Company Dock:** Quay dock 650 feet in length and 105 feet in width.

**Eastern & Western Lumber Company Dock:** Quay dock 655 feet in length and 156 feet in width.

**Portland Lumber Company Dock:** Quay dock 455 feet in length and 138 feet in width.

**Inman Poulsen Lumber Company Dock:** Quay dock 1170 feet in length and 188 feet in width.

**Harvey Dock:** Lumber storage and shipping quay dock. Length 620 feet.

These docks have large areas of ground in rear of and connected with the docks used for lumber storage. They have connection with the railroads serving the port.



HARBOR VIEW MUNICIPAL TERMINAL NO. 1

## FUEL DOCKS

**Associated Oil Company:** Quay dock 395 feet in length. Tank storage capacity:

Crude oil.....	6,720,000 gallons
Refined oil.....	430,920 gallons

**Standard Oil Company:** Quay dock 400 feet in length. Tank storage capacity:

Crude oil.....	2,726,346 gallons
Refined oil.....	3,191,958 gallons

**Union Oil Company of California:** Quay dock, 397 feet in length. Tank storage capacity:

Crude oil.....	3,690,000 gallons
Refined oil.....	840,000 gallons

**The Shell Company:** Quay dock, 350 feet in length. Tank storage capacity:

Crude oil.....	4,620,000 gallons
Refined oil.....	2,100,000 gallons

These oil companies have all necessary facilities for fueling vessels at their docks.

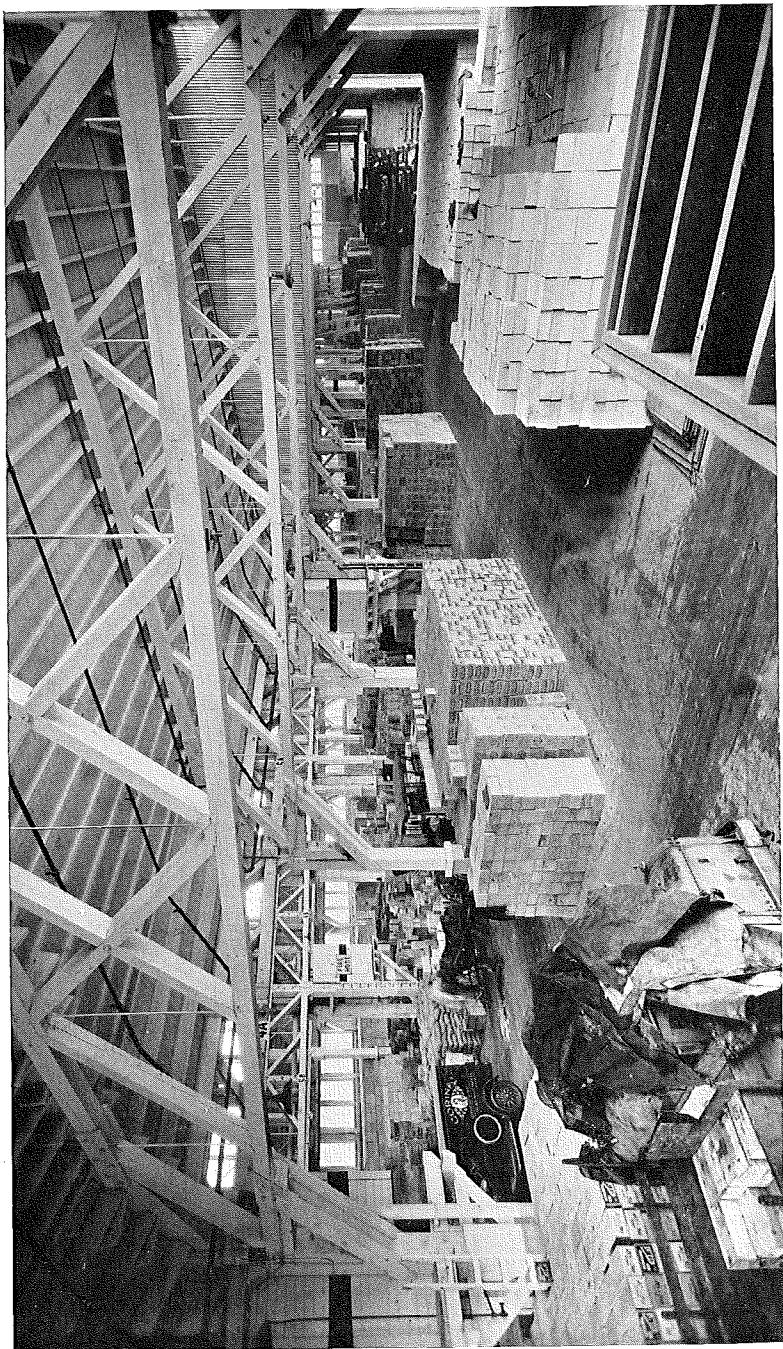
**Coal and Oil Fueling Facilities:** There is in the port a modern 5000-ton gravity discharge, coal ship loading plant, with capacity of 300 tons per hour, with reserve ground storage of 5000 tons. Berthing space is ample for largest vessels. Besides these fixed coal fueling facilities there are available in the port by other coal concerns, a large number of lighters or barges, which are frequently employed in coaling vessels while at berth discharging or receiving cargo. For delivering fuel oil to vessels, two barges, one of 168,000 and another of 84,000 gallons capacity are available, each barge being equipped with boiler and pump, with delivery to vessels at the rate of 42,000 gallons per hour.

**Crane Facilities:** In addition to locomotive crane and derrick facilities at the municipal terminals and dry docks, a 75-ton sheerleg and a 35-ton stiff leg derrick are available for commercial work, centrally located in the harbor.

**Harbor Protection:** The harbor is under the protection of an efficient day and night patrol, acting under the direction of the harbor-master. Two powerful fire boats, maintained by the City, are always available for immediate use.

The revenues accruing from the operation of the municipal terminals have been very satisfying, as shown by attached financial statement.

The municipal terminals of the port are directly operated by the Commission of Public Docks and not leased, being thus available to



INTERIOR PIER "B," MUNICIPAL TERMINAL NO. 1

all users on equal terms. Dock, loading and unloading and other charges are established by tariff and, as a general proposition, they are maintained at a parity with other Pacific Northwest ports so that terminal charges at these ports are for all practical purposes equal.

Pursuant to Subdivision "K", Section 163 of the City Charter and to the statutes of the State of Oregon, and more particularly section 8 of chapter 208 of the general laws of Oregon for 1921, the Commission of Public Docks notified the County Clerk and the County Assessor that the tax levy of the department for the fiscal year ending November 30, 1922, had been fixed at \$593,332.78.

Pursuant to Section 163 of the Charter of the City of Portland as revised by the Council August 19, 1914, there is submitted herewith an itemized account of the receipts and disbursements of the current year.

All ordinances passed by The Commission of Public Docks are matters of public record and are on file in the office of the Auditor of the City of Portland, and also in the office of the Commission.

Respectfully submitted,

JOHN H. BURGARD,  
Chairman, The Commission of Public Docks.

BALANCE SHEET--THE COMMISSION OF PUBLIC DOCKS OF THE CITY OF PORTLAND, OREGON,  
 FISCAL YEAR ENDED NOVEMBER 30, 1922

[illegible]

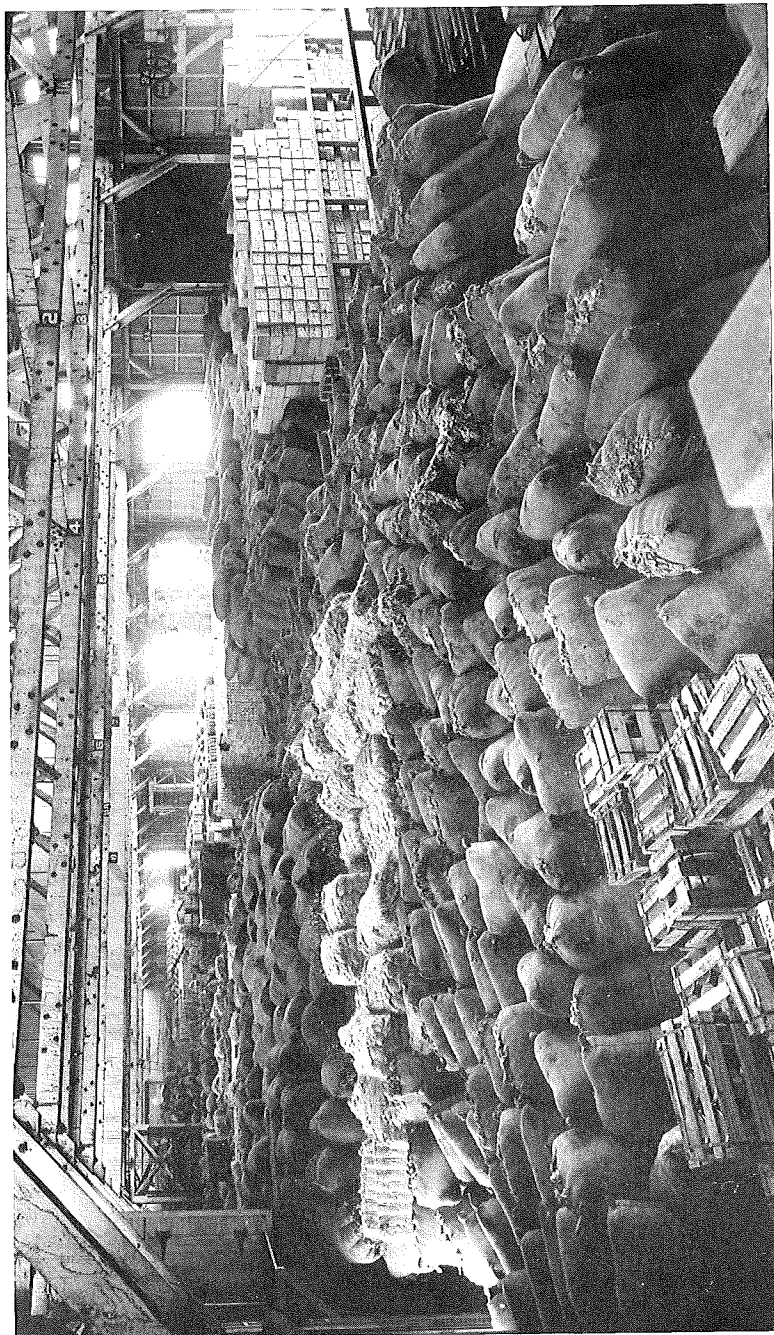
**BALANCE SHEET—THE COMMISSION OF PUBLIC DOCKS OF THE CITY OF PORTLAND, OREGON,  
FISCAL YEAR ENDED NOVEMBER 30, 1922—Continued**

SINKING FUND ACCOUNT	
Cash:	
Sinking fund "A".....	\$3,337.46
Sinking fund "B".....	43,216.71
Sinking fund "C".....	28,914.49
Sinking fund "E".....	2,913.44
Sinking fund "F".....	1,032.11
Sinking fund No. 1.....	1,879.06
	<u>\$81,292.27</u>
Investments:	
Sinking fund "A".....	10,500.00
Sinking fund "B".....	278,300.00
Sinking fund "C".....	171,086.03
Sinking fund "E".....	28,000.00
Sinking fund "F".....	18,500.00
Sinking fund No. 1.....	31,196.00
	<u>537,582.03</u>
	<u>\$618,874.30</u>
Accounts payable .....	\$18,170.64
Surplus .....	600,703.66
	<u>\$618,874.30</u>

SUMMARY BALANCE SHEET	
Capital Accounts:	
Resources .....	\$9,965,757.04
Liabilities .....	10,205,299.50
	<u>\$239,542.46</u>
Sinking Fund Accounts	
Resources .....	618,874.30
Liabilities .....	18,170.64
	<u>\$600,703.66</u>
Operation Accounts:	
Resources .....	412,529.90
Liabilities .....	257,933.91
	<u>\$154,595.99</u>
	<u>755,299.65</u>
	<u>239,542.46</u>
Net Surplus .....	<u>\$515,757.19</u>

duplicate



WOOL CARGOES ASSEMBLED AT MUNICIPAL TERMINAL NO. 1 FOR SHIPMENT BY VESSELS TO ATLANTIC SEABOARD

REVENUE AND EXPENSE—THE COMMISSION OF PUBLIC DOCKS OF THE CITY OF PORTLAND,  
OREGON, FISCAL YEAR ENDED NOVEMBER 30, 1922

OPERATING ACCOUNT		EXPENSE	
REVENUE		Administration:	
Tax Receipts:		Personal service	
Delinquent .....	\$36,642.11	Office supplies .....	\$43,449.05
1922 Tax Roll .....	541,186.68	Subscriptions .....	5,185.08
1923 Tax Roll .....	3,969.96	Travel expense .....	1,338.52
Used for debt purposes .....	581,798.75	Supplies for boat landings .....	1,140.38
	565,707.14	Engineering supplies .....	547.84
		Sundry expense .....	303.17
Interest on daily bank balances...	\$16,091.61	Joint traffic expense .....	5,173.04
	6,367.92	Insurance .....	28,863.15
Premiums earned on bonds sold...	15,428.40	Maintenance .....	753.04
		Equipment depreciation .....	576.18
			904.60
			\$87,418.05
Operating Revenue:			
Terminal No. 1:		Terminal Operation:	
Services furnished others.....	60,215.22	Terminal No. 1:	
Wharfage .....	62,061.42	Services furnished others.....	32,400.33
Dockage .....	378.04	Personal service .....	23,988.73
Storage .....	11,012.87	Office supplies .....	690.09
Rental of equipment.....	7,871.72	Dock supplies .....	1,670.09
Space rental .....	1,086.12	Fire protection—A.D.T. System	473.50
Public scales .....	105.50	Telephone, electric current,	
Electric current .....	452.69	water heat .....	3,170.00
Water .....	969.85	Sundry expense .....	1,142.84
Sundries .....	9.18	Insurance .....	2,064.05
		Maintenance .....	26,736.04
		Depreciation of equipment....	2,546.53
			94,802.60
Terminal No. 2:		Terminal No. 2:	
Service furnished others.....	21,396.66	Services furnished others.....	10,903.16
Wharfage .....	35,360.44	Personal service .....	11,919.00
Dockage .....	28.96	Office supplies .....	344.61
Storage .....	2,144.15	Dock supplies .....	329.60
Rental of equipment.....	384.91	Fire protection .....	159.50
Space rental .....	1,490.71	Telephone, electric current,	
Electric current .....	382.60	water, heat .....	1,657.82
Water .....	504.78	Sundries .....	343.13
Sundries .....	.50	Insurance .....	1,207.51
		Maintenance .....	1,422.63
		Depreciation of equipment....	367.70
			\$28,654.66

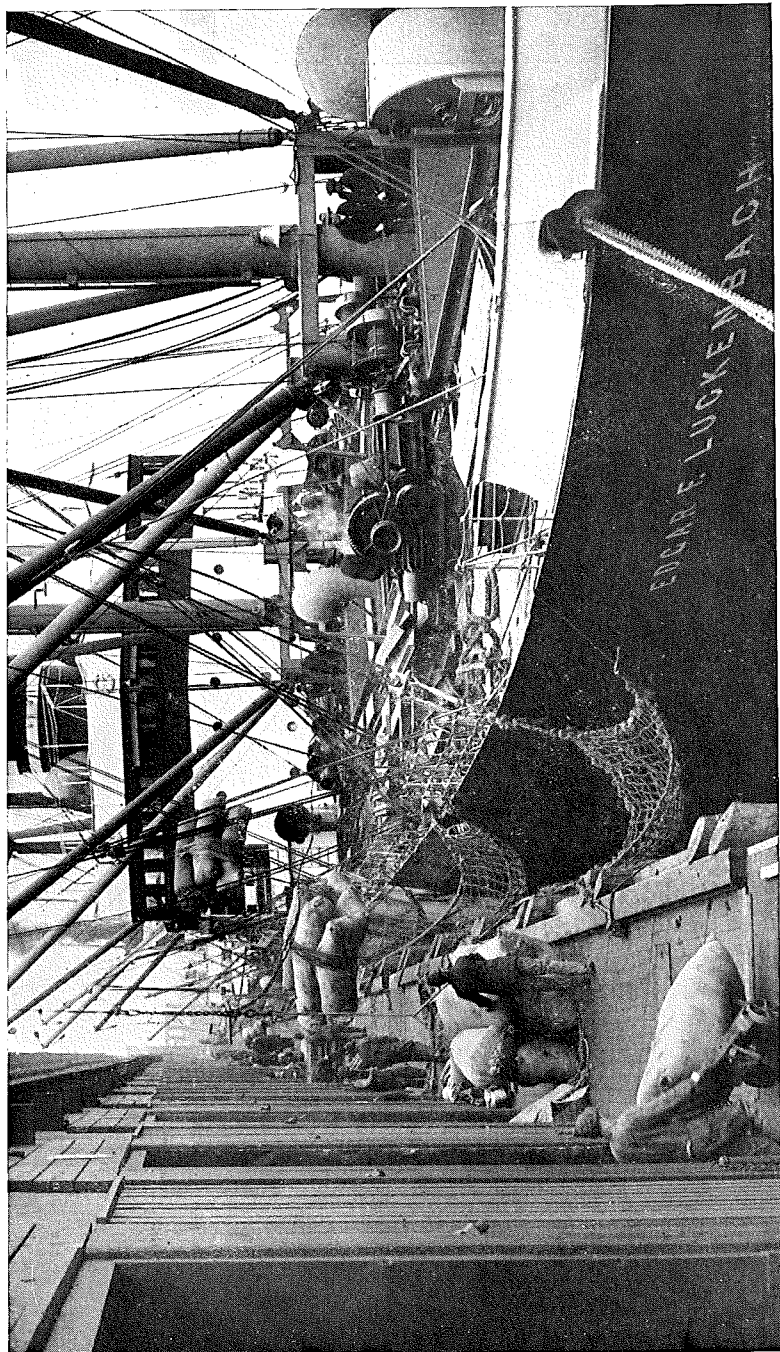
REVENUE AND EXPENSE—THE COMMISSION OF PUBLIC DOCKS OF THE CITY OF PORTLAND,  
OREGON, FISCAL YEAR ENDED NOVEMBER 30, 1922—Continued

OPERATION ACCOUNT—Continued		
REVENUE	EXPENSE	
<b>Terminal No. 3:</b>	<b>Terminal No. 3:</b>	
Services furnished others.....	Services furnished others.....	\$1,489.25
Wharfage .....	Personal service .....	5,980.51
Dockage .....	Office supplies .....	117.16
Storage .....	Dock supplies .....	69.09
Rental of equipment.....	Fire protection .....	144.00
Water .....	Telephone, electric current, water .....	164.90
Sundries .....	Sundries .....	31.85
	Insurance .....	729.88
	Maintenance .....	85.01
	Depreciation of equipment....	182.23
		\$8,693.88
<b>Terminal No. 4:</b>	<b>Terminal No. 4:</b>	
Services furnished others.....	Services furnished others.....	98,434.19
Wharfage and elevator.....	Personal services .....	75,708.42
Dockage .....	Office supplies .....	1,216.35
Storage .....	Dock and elevator supplies....	6,118.86
Rental of equipment.....	Fire protection .....	1,641.06
Space rental .....	Telephone .....	13,808.45
Weighing .....	Leases .....	1,181.61
Water .....	Sundries .....	2,606.13
Electric current .....	Insurance .....	25,359.94
Sundries .....	Maintenance .....	17,565.16
	Depreciation .....	9,030.47
		252,670.64
<b>Miscellaneous:</b>	<b>Street Railway:</b>	
Public levee rental.....	Operation cost less revenue....	6,796.33
Sundry street ends.....	Sundry maintenance .....	194.01
		6,990.34
<b>Total .....</b>	<b>Dry Dock:</b>	
	Maintenance .....	7.00
	Insurance .....	4,013.19
		4,020.19
	<b>Reserve for maintenance.....</b>	<b>483,250.36</b>
	<b>Reserve for insurance.....</b>	<b>30,557.10</b>
	<b>Reserve for bad debts.....</b>	<b>23,896.45</b>
	<b>Total .....</b>	<b>5,284.29</b>
		\$542,988.20

REVENUE AND EXPENSE—THE COMMISSION OF PUBLIC DOCKS OF THE CITY OF PORTLAND,  
OREGON, FISCAL YEAR ENDED NOVEMBER 30, 1922—Continued

Forward—Operation Account total revenue.....	\$585,329.77	Total expense .....	\$542,988.20
<b>CAPITAL ACCOUNT</b>			
Interest earnings .....	\$4,313.90	Expense bond issues.....	\$1,315.40
<b>DEBT ACCOUNT</b>			
<b>REVENUE</b>		<b>EXPENSE</b>	
Tax receipts for debt purposes.....	\$565,707.14	Interest on bonded debt.....	\$461,635.00
Interest earnings .....	24,987.38	Total Expense, all accounts.....	1,005,938.00
Total Revenue, all sources.....	<u>1,180,338.19</u>	1922 Contribution to surplus.....	174,399.59
			<u>\$1,180,338.19</u>
<b>REVENUE</b>			
Surplus at close of 1921.....	341,357.60		
Surplus at close of 1922.....	515,757.19		
Increase.....	<u>\$174,399.59</u>		

duff



VESSEL LOADING WOOL AT MUNICIPAL TERMINAL NO. 1 FOR ATLANTIC COAST

## CONSTRUCTION FUND

## Receipts

## Bonds Sold:

Grain Elevator Series 3.....	\$180,000.00	
Grain Elevator Series 4.....	320,000.00	
		\$500,000.00

Interest on Bank Cash:.....		4,313.90
-----------------------------	--	----------

## Insurance:

Return Premium.....		5.31
---------------------	--	------

## Harbor Development:

Reimbursement by City of amount advanced by Commission of Public Docks for ex- pense of investigations by Committee of Fifteen.....		983.22
--	--	--------

## Inventory Terminal No. 4:

Sale at Public Auction of 40-ton O. & N. Crane to M. F. Brady.....	6,250.00	
Reimbursement by W. J. Jones of cost of 4 grain chutes carried away in grain cargo by S. S.....	88.00	
		6,338.00

## Plant, Terminal No. 1:

Sale of salvaged junk iron at Public Auc- tion to J. Simon & Bro.....		40.20
--	--	-------

## Plant, Terminal No. 4:

Allowance for returned cement sacks.....	5.40	
Allowance by Maryland Casualty Co., on account of injury to Karl von Pier.....	1,473.10	
Payment by Eagle Flour Mills for use of crane switching cars of material for con- struction of their plant.....	10.00	
		1,488.50

## Plant, Dry Dock:

Sale of surplus Hardwood.....		2,046.37
-------------------------------	--	----------

515,215.50

Balance, December 1, 1921.....		330,045.53
--------------------------------	--	------------

\$845,261.03

## Disbursements

## Real Estate:

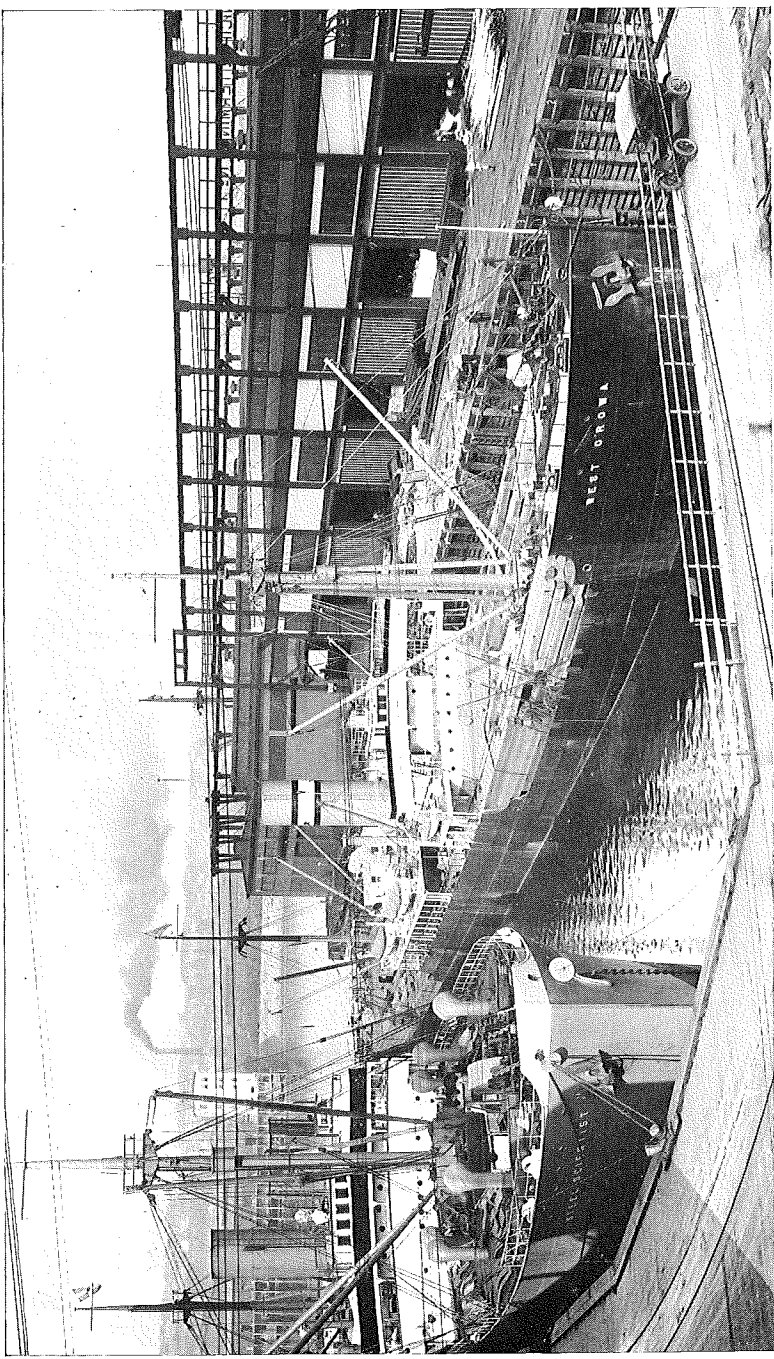
Right of way—Street Railway.....	2,039.96	
Addition to Terminal No. 1.....	180,203.70	
Addition to Terminal No. 4.....	2,006.00	
		184,249.66

## Plant, Terminal No. 1:

Pier B Construction.....	156,330.00	
Wrecking Willamette Iron & Steel Wks...	5,470.67	
Dredging.....	6,210.10	
Secondary fire protection.....	1,056.54	
Engineering.....	7,909.01	
Sundries .....	1,909.11	
		178,885.43

## Plant, Terminal No. 2:

Sundry betterments .....		139.56
--------------------------	--	--------



VESSELS BERTHED IN SLIP AT PIERS A AND B, MUNICIPAL TERMINAL NO. 1

**Plant, Terminal No. 3:**

Sundry betterments .....		\$9.25
--------------------------	--	--------

**Plant, Terminal No. 4:**

Pier No. 1, Harbor Extension.....	\$57,620.65	
Engineering Expense, same.....	1,503.88	
Apple Warehouse.....	99,494.35	
Engineering Expense, same.....	1,954.57	
Dredging and filling.....	3,293.78	
Grain Elevator.....	7,244.84	
Pier No. 1.....	2,440.98	
Pier No. 2.....	1,266.87	
Pier No. 3.....	5.63	
Pier No. 5 and Bunkers.....	1,765.00	
Vegetable Oil Plant.....	76.64	
Administration Building.....	311.14	
Cafe and Welfare Buildings.....	1,498.87	
Trackage.....	8,987.23	
Roadways, Walks, Parks.....	2,532.92	
Water Service.....	467.29	
Small Buildings.....	82.20	
Fuel Oil Supply.....	953.03	
Damage and Accident Claims.....	4,579.00	
Engineering—General .....	1,922.60	
O. W. Oil Tank Pipe Line.....	428.33	
		198,429.80

**Plant, Dry Dock:**

Pontoons .....	15,852.09	
Electric Wiring.....	3,148.46	
Dry Dock Berth.....	78,666.15	
Engineering.....	675.31	
Sundry Material and Expense.....	5,350.14	
		103,692.15

**Plant, Street Railway:**

Paving Tracks.....	1,794.43	
Viaduct.....	1,301.19	
Engineering.....	137.66	
Construction Extension.....	5,332.13	
		8,565.41

**Plant, Stark Street:**

Sundry Betterment.....		43.57
------------------------	--	-------

**Equipment:**

Terminal No. 1.....	6,690.69	
Terminal No. 2.....	37.79	
Terminal No. 3.....	15.00	
Terminal No. 4.....	6,276.40	
General.....	3,738.12	
		16,758.00

**Insurance:**

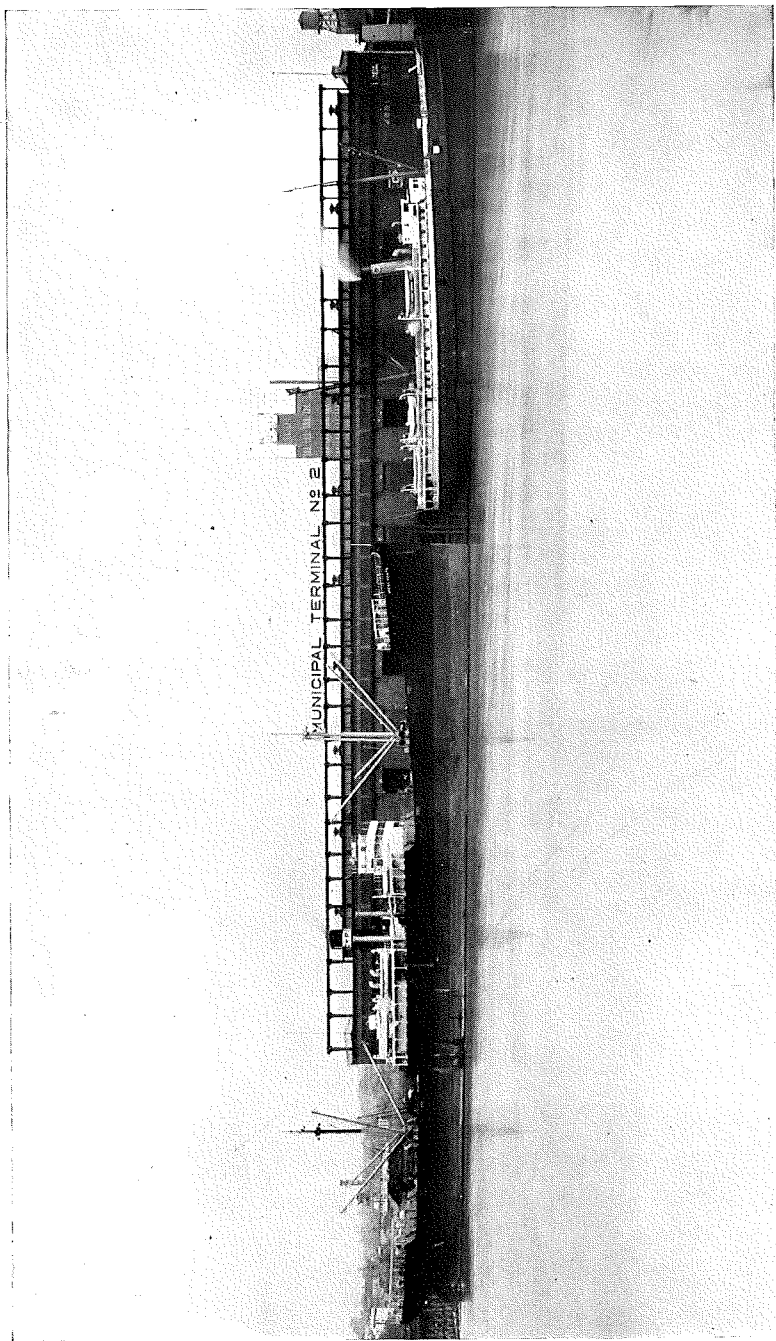
		4,352.45
--	--	----------

**Expense of Bond Issues:**

Grain Elevator Series 3 .....	515.04	
Grain Elevator Series 4 .....	800.36	
		1,315.40

Balance, November 30, 1922.....		696,440.68
		148,820.35

		<u>\$845,261.03</u>
--	--	---------------------



PORTLAND MUNICIPAL TERMINAL NO. 2 SERVING COASTAL AND INTERCOASTAL COMMERCE

## GENERAL FUND

## Receipts

## Revenue From Operation:

Terminal No. 1.....	\$144,813.61	
Terminal No. 2.....	59,788.24	
Terminal No. 3.....	10,722.15	
Terminal No. 4.....	358,940.60	
Public Levee.....	3,849.99	
Street Ends.....	450.00	
		\$578,564.59

## Interest Earnings:

On Daily Balances.....	3,656.42	
Accrued on Bonds Sold.....	630.28	
		4,286.70

## Taxes:

Current.....	541,186.68	
Delinquent.....	36,642.11	
Future.....	3,969.96	
		581,798.75

## Sundries:

Bad Debt Collections.....	86.32	
Accounts Recollectible Paid in.....	211.11	
Premium on Bonds sold.....	15,428.40	
Return Premiums on Insurance.....	5,672.46	
Return on Contract with PRDF.....	4,115.00	
Repairs Charged to Others.....	627.48	
Port of Portland share of Maps.....	280.08	
Refund—phone calls—sales of Prints and Miscellany.....	149.60	
		26,570.45

Balance, December 1, 1921..... 153,181.89.

\$1,344,402.38

## Disbursements

## Administration:

Personal Service.....	42,346.38	
Joint Traffic.....	28,994.55	
Supplies and Expense.....	13,580.31	
		84,921.24

## Operation Terminal No. 1:

Operations for Others.....	33,284.51	
Personal Service.....	23,474.14	
Supplies and Expense.....	8,350.65	
		65,109.30

## Operation Terminal No. 2:

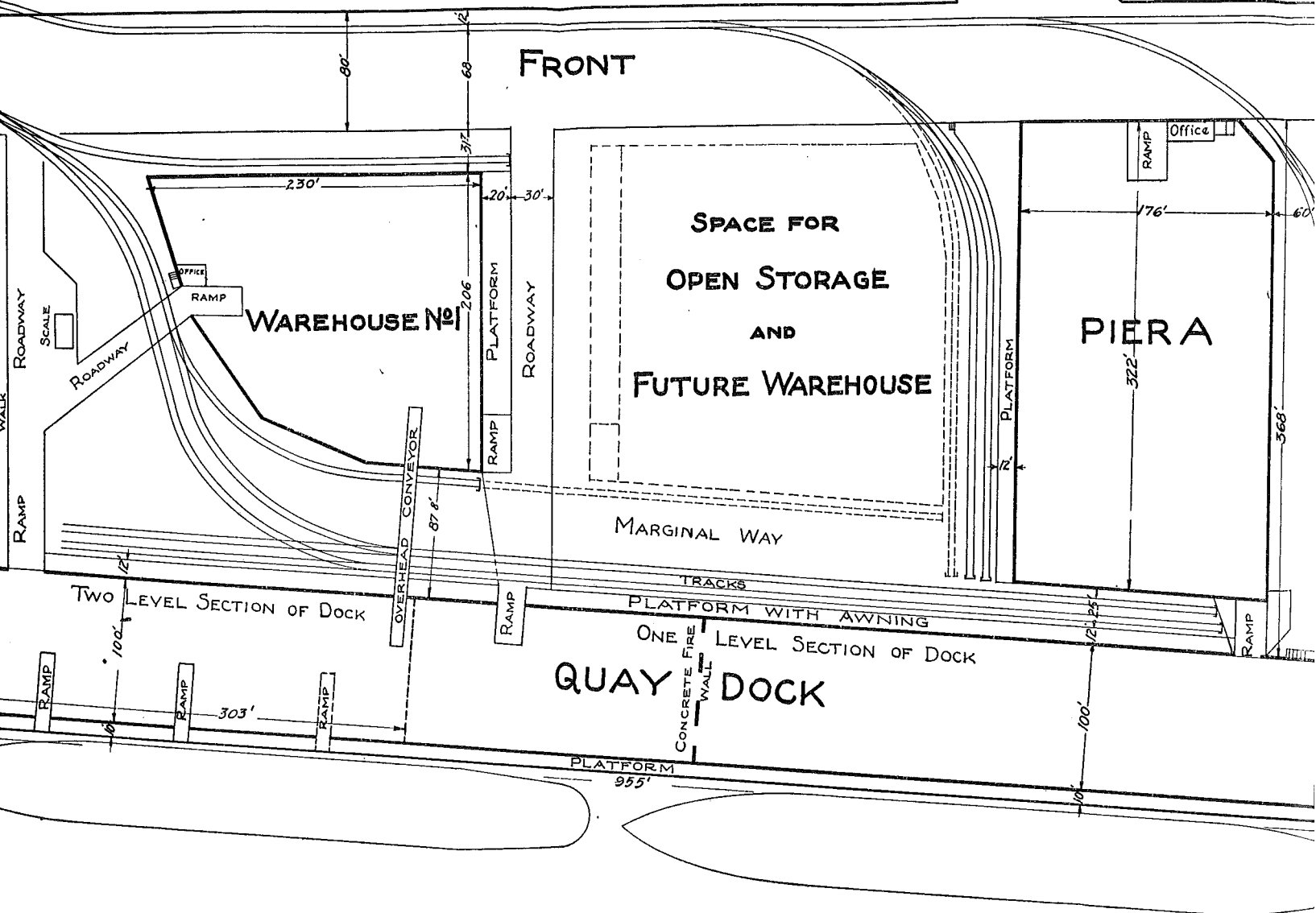
Operations for Others.....	10,669.59	
Personal Service.....	12,105.52	
Supplies and Expense.....	2,961.67	
		25,736.78



TYPICAL PAPER CARGO ASSEMBLED AT MUNICIPAL TERMINAL NO. 2 FOR COASTAL SHIPMENT BY VESSEL

N. 17<sup>TH</sup>  
ST.

FRONT

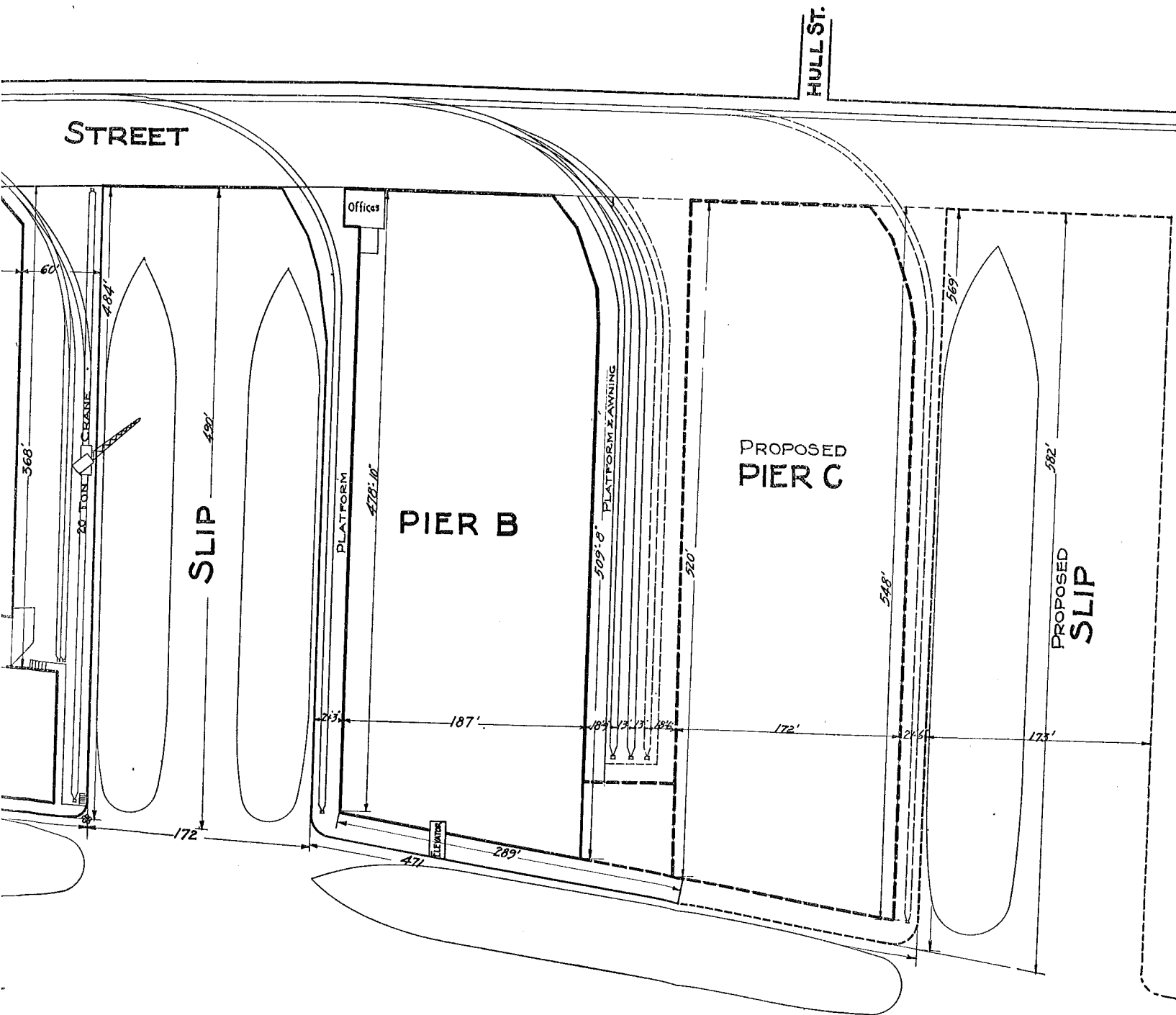


→ WILLAMETTE

→ RIVER →

PORTLAND MUNICIPAL

GENERAL PLAN MUNICIPAL



MUNICIPAL TERMINAL No 1

THE COMMISSION OF PUBLIC DO  
PORTLAND ORE.  
1923

MUNICIPAL TERMINAL NO. 1.

**Operation Terminal No. 3:**

Operations for Others .....	\$1,511.75	
Personal Service .....	5,710.73	
Supplies and Expense .....	529.42	
		<u>\$7,751.90</u>

**Operation Terminal No. 4:**

Operations for Others .....	101,259.69	
Personal Service .....	75,845.41	
Supplies and Expense .....	46,141.72	
		<u>223,246.82</u>

<b>Operation Street Railway:</b> .....	6,299.58	
<b>Maintenance:</b> .....	46,501.08	
<b>Insurance:</b> .....	37,780.08	

**Bonded Debt:**

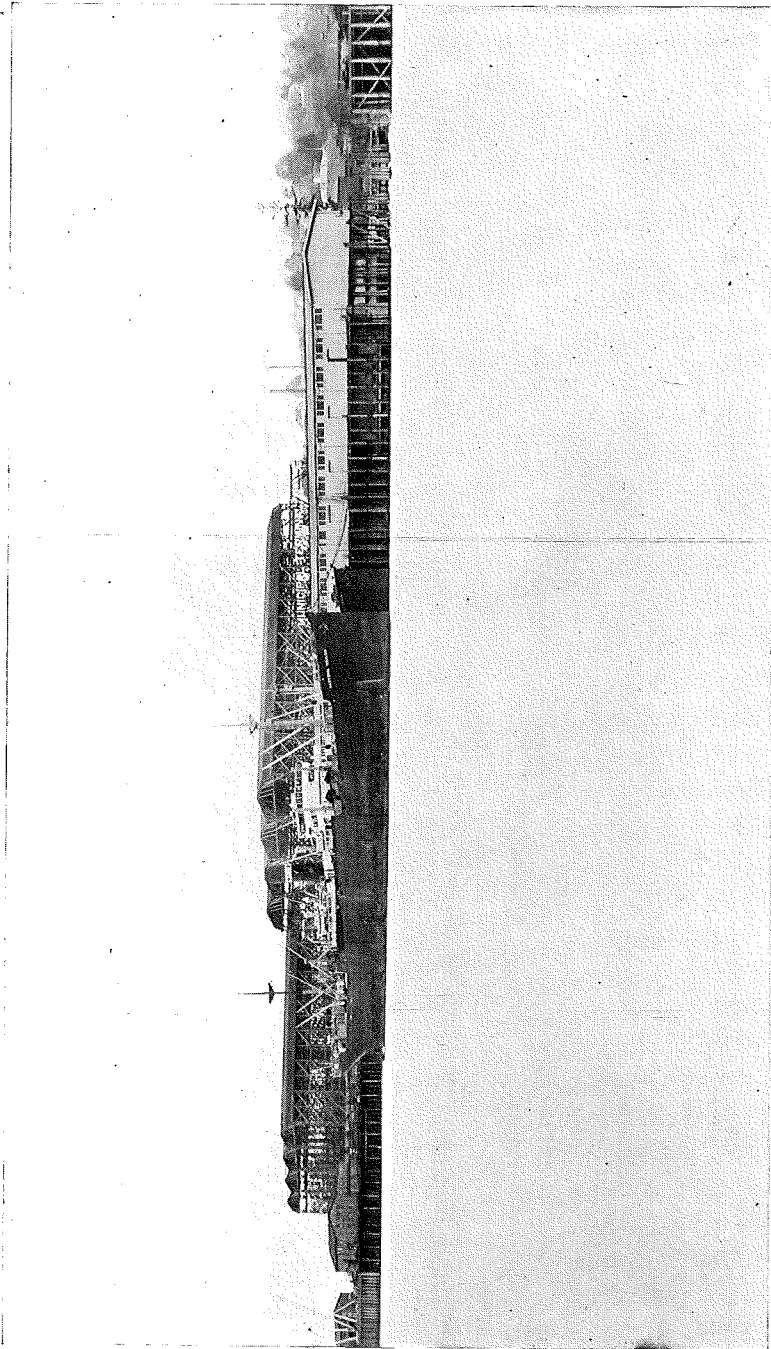
Interest .....	461,635.00	
Serial Redemptions .....	125,000.00	
Sinking Fund Installments .....	58,258.00	
		<u>644,893.00</u>

<b>Accounts Payable:</b> .....	2.58	
<b>Accounts Recollectible:</b> .....	308.69	
<b>Refunds and Overpayments:</b> .....	601.41	
<b>Transfer to Insurance Fund:</b> .....	20,000.00	

	<u>1,163,152.46</u>	
Balance, November 30, 1922 .....	181,249.92	

\$1,344,402.38

1489



HARBOR VIEW MUNICIPAL TERMINAL NO. 3

**SINKING FUND "A"****Receipts**

1922 Installment from General Fund.....	\$1,000.00	
<b>Interest Accretion:</b>		
Earnings on bank cash.....	44.69	
Earnings on securities.....	522.50	
		<u>\$1,567.19</u>
Balance, December 1, 1921.....		1,770.27
		<u>3,337.46</u>
Balance, November 30, 1922.....		<u>\$3,337.46</u>

**SINKING FUND "B"****Receipts**

1922 Installment from General Fund.....	\$28,125.00	
<b>Interest Accretion:</b>		
Earnings on bank cash.....	286.64	
Earnings on securities.....	13,055.55	
Securities Matured.....	2,000.00	
		<u>43,467.19</u>
Balance, December 1, 1921.....		2,769.81
		<u>\$46,237.00</u>

**Disbursements**

Securities Bought.....	3,000.00	
Accrued Interest.....	20.29	
		<u>3,020.29</u>
Balance, November 30, 1922.....		43,216.71
		<u>\$46,237.00</u>

**SINKING FUND "C"****Receipts**

1922 Installment from Sinking Fund.....	\$18,432.00	
<b>Interest Accretion:</b>		
Earnings on bank cash.....	229.42	
Earnings on Securities.....	8,418.16	
Securities Matured.....	1,000.00	
		<u>28,079.58</u>
Balance, December 1, 1921.....		6,914.97
		<u>34,994.55</u>

**Disbursements**

Securities bought.....	6,000.00	
Accrued Interest.....	80.06	
		<u>6,080.06</u>
Balance, November 30, 1922.....		28,914.49
		<u>\$34,994.55</u>

**SINKING FUND "E"****Receipts**

1922 Installment from General Fund.....	\$3,072.00	
<b>Interest Accretion:</b>		
Earnings on Bank Cash.....	48.80	
Earnings on Securities.....	1,255.00	
		<u>\$4,375.80</u>
Balance, December 1, 1921.....		495.64
		<u>4,871.44</u>

**Disbursements**

Securities Bought.....	2,000.00	
Discount.....	41.00	
		<u>1,959.00</u>
Balance, November 30, 1921.....		2,912.44
		<u>\$4,871.44</u>

**SINKING FUND "F"****Receipts**

1922 Installment from General Fund.....	\$2,424.00	
<b>Interest Accretion:</b>		
Earnings on Bank Cash.....	19.30	
Earnings on Securities.....	925.00	
		<u>\$3,368.30</u>
Balance, December 1, 1921.....		602.31
		<u>3,970.61</u>

**Disbursements**

Securities Bought.....	3,000.00	
Discount.....	61.50	
		<u>2,938.50</u>
Balance, November 30, 1922.....		1,032.11
		<u>\$3,970.61</u>

**SINKING FUND NO. 1****Receipts**

1922 Installment from General Fund.....	\$5,205.00	
<b>Interest Accretion:</b>		
Earnings on Bank Cash.....	41.45	
Earnings on Securities.....	1,444.91	
		<u>6,691.36</u>
Balance, December 1, 1921.....		487.03
		<u>7,178.39</u>

**Disbursements**

Securities Bought.....	5,000.00	
Accrued Interest.....	299.33	
		<u>5,299.33</u>
Balance, November 30, 1922.....		1,879.06
		<u>\$7,178.39</u>

**SPECIAL FUND "A"**

(Reserve Fund for Future Maintenance)

**Receipts****Interest Accretion:**

Earnings on Bank Cash.....	\$620.21	
Earnings on Securities.....	601.30	
		<u>\$1,221.51</u>
Balance, December 1, 1921.....		33,633.98
		<u>34,855.49</u>
Balance, November 30, 1922.....		<u>\$34,855.49</u>

**SPECIAL FUND "E"**

(Reserve Fund for Fire Emergency—Established 1922)

**Receipts**

Initial Transfer from General Fund.....	\$20,000.00	
<b>Interest Accretion:</b>		
Earnings on Bank Cash.....	27.49	
Earnings on Securities.....	982.50	
		<u>\$21,009.99</u>

**Disbursements**

Securities Bought.....	18,000.00	
Discount.....	101.00	
Accrued Interest.....	1,087.50	
		<u>18,986.50</u>
Balance, November 30, 1922.....		2,023.49
		<u>\$21,009.99</u>

**SPECIAL FUND "E"**

(Special Deposit of Uncalled for Checks, Interest Accretion charged to General Fund—Established 1922)

**Receipts**

Checks Deposited .....	<u>\$353.24</u>
------------------------	-----------------

**Disbursements**

Checks called for and delivered.....	8.71
Balance, November 30, 1922.....	344.53
	<u>\$353.24</u>

**CONTINGENT FUND**

(Revolving Fund for Emergency Requirement)

Balance, December 1, 1921.....	<u>\$20,000.00</u>
Balance, November 30, 1922.....	<u>\$20,000.00</u>

## INVESTMENT INVENTORY, NOVEMBER 30, 1922

## Sinking Fund "A" Securities:

Par Value.

Dock Bonds, Series "E", dated Oct. 1, 1914; 25-year, $4\frac{1}{2}$ per cent, denomination \$1,000.00, numbers 1 to 3 inclusive.....	\$3,000.00	
U. S. Victory Gold Notes, dated May 20, 1919, 1922-23 maturity; $4\frac{3}{4}$ per cent; denomination \$1,000.00; numbers J-2061695-699, inclusive.....	5,000.00	
City of Portland Improvement Bond, dated March 1, 1921; 10-year optional 3 years; 6 per cent; denomination \$500.00, number 34862 .....	500.00	
City of Portland Improvement Bonds, dated November 1, 1920; 10-year; 6 per cent; denomination \$1000.00; numbers 33490-491..	2,000.00	
		<u>\$10,500.00</u>

## Sinking Fund "B" Securities:

Dock Bonds, Series "E", dated Oct. 1, 1914; 25-year; $4\frac{1}{2}$ per cent; denomination \$1,000.00; numbers 4 to 32, inclusive; 52 to 78, inclusive.....	56,000.00	
City of Portland Improvement Bonds, dated March 1, 1916; 10-year; 6 per cent; denomination \$1,000.00 and \$500.00; numbers 30611 and 30664 .....	1,500.00	
U. S. Victory Gold Notes, dated May 20, 1919; 1922-23 maturity; $4\frac{3}{4}$ per cent; denomination \$1,000.00; numbers J-2061700-37, inclusive.....	38,000.00	
U. S. Victory Liberty Loan Gold Notes, dated May 20, 1919; 1922-23 maturity; $4\frac{3}{4}$ per cent; denomination \$100.00; numbers J-10005234-6, inclusive.....	300.00	
U. S. Liberty 2ds Converted, dated Nov. 15, 1918; 25 year; $4\frac{1}{4}$ per cent; denomination \$1,000.00; numbers 00475873-80, inclusive; 00006154-00475882-902, inclusive.....	30,000.00	
U. S. Liberty Loan, 4th Issue Converted; dated Oct. 24, 1918; 20-year; $4\frac{1}{4}$ per cent; denomination \$50.00; numbers 00210098-100, inclusive; 0021263-9, inclusive.....	500.00	
U. S. 4th Issue Converted; dated Oct. 24, 1918; 20-year; $4\frac{1}{4}$ per cent; denomination \$5,000.00; numbers 00026322-00026810-4, inclusive.....	30,000.00	
City of Portland Improvement Bonds, dated March 1, 1921; 10-year; optional 3-year; 6 per cent; denomination \$1,000.00; numbers 34842-7, inclusive.....	6,000.00	
City of Portland Improvement Bonds, dated Nov. 1, 1920; 10-year; 6 per cent; denomination \$1,000.00; numbers 33425-89, inclusive.....	65,000.00	

City of Portland Refunding Bonds, dated May 1, 1903; 25-year; 4 per cent denomination \$500.00; numbers 3-6, inclusive....	\$2,000.00	
State of Oregon Bonus Bonds, dated Oct. 1, 1922; 10-year; 4½ per cent; denomination \$1,000.00; numbers 251 to 255, inclusive.....	5,000.00	
State of Oregon Bonus Bonds, dated Oct. 1, 1922; 14-year; 4½ per cent; denomination \$1,000.00; numbers 1126 to 1132, inclusive.....	5,000.00	
State of Oregon Bonus Bonds, dated Oct. 1, 1922; 16-year; 4½ per cent; denomination \$1,000.00; numbers 1633 to 1635, inclusive.....	5,000.00	
City of Portland Municipal Grain Elevator Bond, Series 2; dated Oct. 1, 1918; 6-year; 4½ per cent; denomination \$1,000; number 127.....	1,000.00	
City of Portland Water Loan Bonds, dated July 1, 1893; 20-year; 5 per cent; denomination \$1,000.00; numbers 252-546.....	2,000.00	
City of Portland Water Bonds; dated July 1, 1893; 30-year; 5 per cent; denomination \$1,000.00; numbers 784-93 - 4 - 900 - 9, inclusive; 920-7, inclusive; 938-9-957-975....	25,000.00	
City of Portland Harbor Development Bonds; dated Feb. 2, 1920; 5-year; 4½ per cent; denomination \$1,000.00; numbers 66-71, inclusive.....	6,000.00	
		\$278,300.00

**Sinking Fund "C" Securities:**

City of Portland Improvement Bonds; dated Nov. 1, 1920; 10-year; 6 per cent; denomination \$500; 451.05; numbers 33610-7, inclusive.....	4,451.05	
City of Portland Refunding Bonds; dated May 1, 1903; 25-year; 4 per cent. denomination \$500; numbers 7-8.....	1,000.00	
City of Portland Fire Dept. Construction Bonds; dated Dec. 1, 1919; 6-year; 5 per cent; denomination \$1,000.00; numbers 7-8.....	2,000.00	
City of Portland Fire Dept. Construction Bonds; dated Dec. 1, 1919; 8-year; 5 per cent; denomination \$1,000.00; numbers 11-12.....	2,000.00	
City of Portland Fire Dept. Construction Bonds; dated Dec. 1, 1919; 10-year; 5 per cent; denomination \$1,000.00; number 15.....	1,000.00	
City of Portland Assessment Collection Bond; dated May 1, 1920; 10-year; 5½ per cent; denomination \$1,000.00; number 1175.....	1,000.00	
City of Portland Water Bonds; dated July 1, 1893; 30-year; 5 per cent; denomination \$1,000.00; numbers 769-83, inclusive.....	15,000.00	

City of Portland Dock Bonds; Series D1; dated Sept. 1, 1913; 10-year; 5 per cent; denomination \$100.00; numbers 1-2.....	\$200.00	
City of Portland Series "E"; dated Oct. 1, 1914; 25-year; 4½ per cent; denomination \$1,000.00; numbers 33-51, inclusive; 79-97, inclusive.....	38,000.00	
City of Portland Improvement Bonds; dated Jan. 1, 1916; 10-year; 6 per cent; denomination \$434.98; \$500.00; numbers 30442-30667 .....	934.98	
U. S. Victory Gold Notes; dated May 20, 1919; 4¾ per cent; 1922-23 maturity; denomination \$1,000.00; numbers 2061738-59, inclusive.....	22,000.00	
U. S. Liberty 2ds Converted; dated Nov. 15, 1918; 25-year; 4¾ per cent; denomination \$1,000.00; numbers 00256571-90, inclusive.....	20,000.00	
U. S. Liberty 4th Loan, Converted; dated Oct. 24, 1918; 20-year; 4¾ per cent; denomination \$5,000.00; numbers 00026815-8, inclusive.....	20,000.00	
City of Portland Improvement Bonds; dated March 1, 1921; optional 3-year; 10-year; 6 per cent; denomination \$1,000.00; numbers 34747-61, inclusive; 34848-55, inclusive; denomination \$500.00; numbers 34893-900, inclusive; denomination \$1,000.00; numbers 34812-6, inclusive.....	32,000.00	
City of Portland Improvement Bonds; dated Nov. 1, 1920; 10-year; 6 per cent; denomination \$500.00; numbers 33587-609, inclusive .....	11,500.00	
		\$171,086.03

#### Sinking Fund "E" Securities:

City of Portland Series "E" Bonds; dated Oct. 1, 1914; 25-year; 4½ per cent; denomination \$1,000.00; numbers 98-100, inclusive .....	3,000.00
U. S. Victory Gold Notes; dated May 20, 1919; maturity 1922-23; 4¾ per cent; numbers J-2061760-6, inclusive.....	7,000.00
U. S. Liberty 2ds Converted; dated Nov. 15, 1918; 25-year; 4¾ per cent; denomination \$1,000.00; numbers 00256591-3, inclusive.....	3,000.00
City of Portland Improvement Bonds; dated March 1, 1921; 10-year; optional 3-year; 6 per cent; denomination \$500.00; numbers 34911-3, inclusive.....	1,500.00
City of Portland Improvement Bonds; dated Nov. 1, 1920; 10-year; 6 per cent; denomination \$1,000.00; numbers 33502-7, inclusive.....	6,000.00

City of Portland Water Bonds; dated July 1, 1893; 30-year; 5 per cent; denomination \$1,000.00; numbers 761-3, inclusive .....	\$3,000.00	
City of Portland Albina Ferry Bonds; series 1903; dated Jan. 1, 1904; 30-year; 4 per cent; denomination \$500; number 10 .....	500.00	
Portland Auditorium Bonds; dated Mar. 1, 1916; 30-year; 4 per cent; denomination \$1,000.00; numbers 449-450.....	2,000.00	
City of Portland Improvement Bonds; dated Sept. 1, 1920; 10-year; 6 per cent; denomination \$500.00; numbers 183-184-185-186..	2,000.00	
		<hr/> \$28,000.00

**Sinking Fund "F" Securities:**

U. S. Liberty 2ds Converted; dated Nov. 15, 1917; 4 $\frac{1}{4}$ per cent; denominations \$1,000.00; numbers 00256570-00256699; 25 years .....	2,000.00	
City of Portland Improvement Bonds, dated March 1, 1921; 10-year; optional 3-year; 6 per cent; denomination \$500.00; number 34914 .....	500.00	
City of Portland Improvement Bonds; dated Nov. 1, 1920; 10-year; 6 per cent; denomination \$1,000.00; numbers 33492-501; inclusive .....	10,000.00	
City of Portland Water Bonds; dated July 1, 1893; 30-year; 5 per cent; denomination \$1,000.00; numbers 74-348-2100.....	3,000.00	
Portland Auditorium Bonds; dated March 1, 1916; 3-year; 4 per cent; denomination \$1,000.00; numbers 446-447-448.....	3,000.00	
		<hr/> \$18,500.00

**Sinking Fund No. 1 Securities:**

U. S. Victory Gold Notes; dated May 20, 1919; maturity 1922-23; 4 $\frac{3}{4}$ per cent; denomination \$1,000.00; numbers, 2061767-74, inclusive.....	8,000.00	
War Savings Certificate, Series 1919; dated Dec. 1, 1919; 5-year; denomination \$846; number 49326.....	846.00	
U. S. Liberty Bond; dated May 9, 1918; 10-year; 4 $\frac{1}{4}$ per cent; denomination \$50; numbers 195725-31, inclusive.....	350.00	
City of Portland Improvement Bonds; dated March 1, 1921; optional 3 years; 10-year; 6 per cent; denomination \$500.00; numbers 34916-6.....	1,000.00	
City of Portland Improvement Bonds; dated Nov. 1, 1920; 10-year; 6 per cent; denomination \$1,000.00; numbers 33508-16, inclusive.....	9,000.00	
City of Portland Water Bonds; dated July 1, 1893; 30-year; 5 per cent; denomination \$1,000.00; numbers 764-8, inclusive.....	5,000.00	

City of Portland Water Bonds; dated July 1, 1893; 30-year; 5 per cent; denomination \$1,000.00; number 2101.....	\$1,000.00	
City of Portland Reconstruction Bond; dated June 1, 1920; 4-year; 5½ per cent; denomination \$1,000.00; number 12.....	1,000.00	
City of Portland Improvement Bonds; dated Nov. 1, 1918; callable 2-years; 6 per cent; denomination \$1,000.00; numbers 31901-2-3-4.....	5,000.00	\$31,196.00
<b>Special Fund "A" Securities:</b>		
U. S. Liberty 2d Converted; dated May 9, 1919; 25-year; 4¼ per cent; denomination \$1,000.00; numbers 00256560-4, inclusive..	5,000.00	5,000.00
<b>Special Fund "E" Securities:</b>		
City of Portland Improvement Bonds; 6 per cent; dated Oct. 1, 1921; 10-year; denomination \$1,000.00; numbers 36260-62-64-66-68-80-82-84-86-88-90-92-94-96-98.....	15,000.00	
City of Portland Assessment Collection Bonds; dated Aug. 1, 1918; 10-year; denomination \$1000.00; 5½ per cent; numbers 298, 299, 300.....	3,000.00	\$18,000.00

### COMPARATIVE STATEMENT OF COST OF OPERATION OF MUNICIPAL STREET RAILWAY

	Expense	
<b>Maintenance:</b>	<b>1922</b>	<b>1921</b>
Way and Structure—Cost plus 10 per cent...	\$274.38	\$160.67
Equipment Cost .....	1,551.06	1,716.70
	<u>1,825.44</u>	<u>1,877.37</u>
<b>Transportation:</b>		
Platform men—Cost.....	3,698.31	3,853.43
Other expenses—Cost .....	1,190.80	1,253.86
Power—2 cents per K. W. H.....	2,896.40	2,935.70
	<u>7,785.51</u>	<u>8,042.99</u>
<b>Administration:</b>		
General expenses—Cost.....	1,430.52	1,528.47
Interest—fixed charge.....	705.36	706.26
Taxes—cost.....	205.20	193.08
	<u>2,341.08</u>	<u>2,427.81</u>
Total expense .....	<u>\$11,952.03</u>	<u>\$12,348.17</u>
	<b>Revenue</b>	
Passenger Fares.....	5,155.70	4,581.45
Net Cost.....	<u>6,796.33</u>	<u>7,766.72</u>

# SUMMARY OF RECEIPTS AND DISBURSEMENTS—CAPITAL AND OPERATING—YEARS 1912 TO 1922 INCLUSIVE

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	Aggregate
<b>CAPITAL:</b>												
Receipts												
Bonds sold.....	\$ 50,000.00	1,195,700.00	1,000,000.00	100,000.00	.....	1,429,470.00	939,400.00	1,210,343.75	3,544,117.50	.....	500,000.00	9,969,031.25
Miscellaneous.....	.....	.....	192.86	354.19	.....	.....	859.39	.....	.....	623.57	5,297.12	7,327.13
Total.....	\$ 50,000.00	1,195,700.00	1,000,192.86	100,354.19	.....	1,429,470.00	940,259.39	1,210,343.75	3,544,117.50	623.57	505,297.12	9,976,358.38
Disbursements												
Harbor Development.....	\$ 25,591.17	4,189.14	3,365.21	.....	4,555.37	.....	6,596.50	.....	4,371.53	26.40	.....	37,543.45
Real Estate.....	1,860.00	934,896.38	385,743.59	.....	.....	137,000.00	.....	10.00	1,124.11	8,298.90	184,249.66	1,664,334.41
Construction.....	61,990.18	61,990.18	437,793.15	380,992.71	98,419.47	27,493.37	1,274,233.05	1,636,112.01	2,099,822.57	1,588,926.78	446,842.24	8,121,024.73
Miscellaneous.....	18,326.20	2,002.32	1,157.90	295.52	.....	1,504.97	2,685.91	1,481.74	4,695.97	39.57	1,315.40	15,179.30
Total.....	\$ 45,780.37	1,003,078.02	828,059.85	381,288.23	102,974.74	165,998.34	1,283,515.46	1,637,603.75	2,110,084.18	1,597,291.65	682,407.30	9,838,081.89
<b>OPERATING:</b>												
Receipts												
Taxes.....	\$ 19,779.72	61,610.52	111,142.03	163,242.20	171,733.43	172,674.73	247,390.78	298,364.91	356,764.86	635,644.96	581,798.75	2,820,146.89
Interest.....	1,043.96	11,121.89	14,591.51	6,359.07	1,866.84	3,835.42	20,999.91	20,957.47	14,834.49	25,549.20	4,286.70	125,446.46
Operating Revenue.....	549.25	4,151.10	9,212.16	18,334.60	35,489.83	56,734.15	102,321.67	218,745.45	355,477.88	428,137.22	578,650.91	1,808,304.22
Miscellaneous.....	805.00	.....	5,942.75	2,131.44	7,250.16	402.53	446.38	373.80	95.98	.....	15,428.40	33,878.44
Total.....	\$ 22,177.93	76,883.51	140,888.45	190,567.31	216,340.26	233,646.83	371,160.74	538,441.63	727,173.21	1,089,331.38	1,180,164.76	4,786,776.01
Disbursements												
Bond Interest.....	\$ 2,250.00	30,375.00	78,760.00	107,590.00	111,610.00	111,610.00	179,110.00	252,235.00	297,285.00	461,860.00	461,835.00	2,094,270.00
Bond Redemption.....	1,000.00	1,000.00	47,587.00	50,629.00	57,076.60	53,063.00	57,076.60	58,238.00	508,238.00	143,258.00	183,258.00	760,424.20
Operating Expense.....	.....	307.17	7,247.53	11,229.69	14,756.26	17,393.29	51,681.33	122,183.37	208,036.12	271,876.34	328,696.35	1,044,407.75
General Expense.....	4,383.02	6,774.77	9,879.05	11,028.16	12,285.15	17,518.07	21,371.67	35,100.83	73,222.62	73,306.72	84,641.16	350,011.50
Maintenance.....	.....	.....	.....	1,205.96	17,518.90	6,504.16	5,647.98	17,338.57	17,636.61	37,658.30	45,873.80	166,376.88
Insurance*.....	2.17	36.35	.....	7,175.94	9,019.94	2,694.01	7,713.53	24,752.47	25,713.91	30,640.34	52,107.62	139,807.38
Miscellaneous.....	.....	.....	.....	.....	1.66	3.47	447.19	68.44	125.04	.....	.....	684.32
Total.....	\$ 7,635.19	38,493.29	143,443.63	188,838.75	222,268.51	218,716.00	323,115.60	505,926.98	731,731.30	1,038,580.20	1,156,211.73	4,574,982.23

**Note.**—This table shows actual amounts received from sources and disbursed for purposes named and makes no allowances for bond money disbursed for general purposes, nor sinking fund interest accretion, the principal amount only of installments set aside for bond retirement being considered.  
 \*Includes amounts set aside as reserves for future requirements.

**FREIGHT RECEIVED AT PORTLAND MUNICIPAL TERMINAL NO. 1**  
(Tons of 2000 pounds)

	1916	1917	1918	1919	1920	1921	1922
Apples.....	404	13	.....	.....	.....	.....	5
Asphalt.....	531	210	.....	3,080	3,400	645	.....
Autos and parts.....	2	.....	28	116	71	284	1,041
Ballast and gravel.....	.....	600	.....	.....	2,271	269	.....
Books and stationery.....	.....	.....	.....	.....	275	530	1,139
Building material.....	.....	22	244	75	1,585	1,008	1,162
Canned Goods.....	4,955	5,187	725	2,199	3,655	14,805	24,424
Cans and tops.....	18,189	21,122	13,038	21,115	15,115	9,101	341
Casara bark.....	.....	.....	.....	836	83	.....	129
Cement, plaster and lime.....	1,163	145	.....	214	1,444	1,103	.....
Cigars and tobacco.....	.....	.....	.....	.....	.....	65	64
Cocoanut and cocoa meal.....	.....	.....	68	121	38	.....	.....
Coal.....	.....	55	30,946	3,005	718	1,423	1,268
Coffee.....	.....	.....	.....	.....	.....	.....	61
Contractors' equipment.....	.....	.....	649	666	210	.....	.....
Copra.....	524	2,919	9,793	5,690	.....	.....	389
Cordwood.....	.....	107	111	.....	.....	.....	.....
Cotton.....	77	175	33	10	98	667	223
Crates and boxes.....	434	1,174	22,491	22,002	35,543	12,027	942
Drugs and chemicals.....	14	.....	.....	122	722	3,565	6,672
Dry Goods and merchandise.....	16	1	7	82	4,313	625	1,975
Feed, hay and grain.....	509	58	6	790	265	2,479	2,115
Fertilizer.....	.....	.....	.....	.....	.....	205	643
Flour.....	167	18	10,642	27,736	836	4,846	13,951
Fruit and vegetables, fresh.....	86	26	68	239	257	879	781
Groceries and confectionery.....	139	23	71	594	677	6,062	5,919
Hardware.....	166	197	36	51	2,146	8,280	8,070
Hemp and cordage.....	21	5	16	.....	72	577	1,807
Hides, leather and rubber goods.....	.....	.....	113	6	68	1,024	5,027
Hops.....	.....	.....	.....	254	146	.....	.....
Household goods and furniture.....	90	.....	32	44	1,170	1,213	1,130

## FREIGHT RECEIVED AT PORTLAND MUNICIPAL TERMINAL NO. 1—(Continued)

	1916	1917	1918	1919	1920	1921	1922
Iron and steel.....	754	2,682	3,243	274	7,783	6,926	18,991
Livestock.....	.....	3	4	11	2	148	.....
Lumber.....	5,406	10,211	13,871	13,174	5,690	5,773	7,648
Machinery.....	464	1,446	895	901	1,458	4,720	5,674
Manufactured wares.....	26	.....	.....	21	3,276	1,558	4,538
Metal.....	.....	.....	65	2,014	12	4,474	3,854
Miscellaneous.....	378	113	111	825	1,015	6,635	14,838
Oil and grease.....	.....	.....	.....	.....	3,045	1,794	3,787
Packing house products.....	.....	147	29	146	29	443	.....
Paints and oils.....	.....	10	552	141	352	1,399	679
Paper.....	3,096	451	685	1,802	885	1,378	10,610
Piling.....	256	.....	229	795	2,128	148	2
Pipe and plumbers' supplies.....	176	51	2	114	963	6,894	16,078
Prunes.....	.....	.....	.....	.....	.....	.....	10,408
Rugs and matting.....	.....	.....	.....	.....	.....	908	.....
Rags and waste.....	139	519	59	124	58	72	1,365
Sacks and burlap.....	6	.....	.....	20	66	.....	307
Salt.....	69	70	303	143	29	724	849
Scrap metal.....	1,422	3,131	1,903	2,021	1,767	1,151	.....
Seeds, bulbs and spices.....	82	.....	.....	16	94	1,900	496
Ship knees and treenails.....	20	.....	444	225	.....	.....	.....
Shingles.....	.....	.....	.....	.....	.....	.....	1,256
Shooks and staves.....	785	4,262	4,821	1,101	179	1,148	621
Sugar.....	153	6	76	425	41	741	280
Sulphur.....	3,255	697	.....	.....	.....	.....	.....
Tallow.....	.....	.....	.....	.....	.....	222	.....
Tea.....	.....	.....	.....	.....	293	482	354
Tinplate.....	5,177	6,511	10,698	4,477	4,450	780	16,502
Wheat.....	.....	.....	.....	.....	234	2,586	35
Wire and fencing.....	26	.....	30	.....	144	2,863	4,003
Wool.....	846	1,652	1,078	1,024	168	11,042	13,649
Totals.....	50,115	64,019	128,215	118,868	109,289	138,591	216,102

**FREIGHT RECEIVED AT PORTLAND MUNICIPAL TERMINAL NO. 2**  
(Tons of 2000 pounds)

	1916	1917	1918	1919	1920	1921	1922
Apples.....	31	329	135	26	.....	.....	633
Asphalt.....	160	1,000	1,229	5,688	3,487	712	18
Autos and parts.....	5	.....	.....	316	347	399	1,469
Books and stationery.....	.....	.....	.....	373	189	371	645
Building material.....	.....	.....	.....	220	139	50	593
Canned milk.....	.....	412	263	1,763	820	.....	.....
Canned goods.....	1	.....	11	931	2,856	4,994	10,882
Canned salmon.....	360	37	.....	40	240	.....	.....
Cement, plaster and lime.....	1,931	1,434	4,873	16,532	17,815	16,584	13,491
Cigars and tobacco.....	.....	.....	.....	.....	.....	257	866
Coal.....	.....	.....	.....	.....	36	54	12
Coffee.....	.....	.....	.....	.....	.....	.....	.....
Copra.....	.....	.....	.....	.....	.....	.....	.....
Cordwood.....	.....	1,440	2,371	.....	.....	549	.....
Cotton.....	2,342	4,493	3,076	.....	3	.....	.....
Crates and boxes.....	.....	110	.....	.....	83	64	2
Drugs and chemicals.....	5	.....	32	725	.....	1,229	1,183
Drygoods and merchandise.....	.....	.....	.....	608	305	756	2,040
Feed, hay and grain.....	.....	.....	2	422	1,283	431	949
Fertilizer.....	61	173	158	2,927	1,290	963	1,928
Flour.....	80	.....	76	23	48	859	8
Fruits and vegetables, fresh.....	.....	.....	.....	2,236	3,651	7,479	15,152
Groceries and confectionery.....	31	59	112	608	780	501	1,418
Hardware.....	20	.....	3	4,351	2,144	4,279	7,555
Hemp and cordage.....	.....	.....	.....	1,502	1,323	1,267	1,662
Hides, leather and rubber goods.....	25	.....	87	357	58	401	419
Hops.....	1	.....	3	324	178	258	717
Household goods and furniture.....	16	3	10	5	36	.....	.....
Iron and steel.....	3	4	9	620	637	704	1,268
Lath.....	.....	.....	146	239	789	708	530
Livestock.....	.....	.....	.....	.....	.....	.....	296
	.....	.....	.....	11	1	19	2

## FREIGHT RECEIVED AT PORTLAND MUNICIPAL TERMINAL NO. 2—(Continued)

	1916	1917	1918	1919	1920	1921	1922
Lumber.....	1,853	8,596	1,607	1,106	1,435	709	1,241
Machinery.....	18	227	133	636	946	693	1,411
Manufactured wares.....				352	10	522	849
Metal.....	60			37		133	212
Miscellaneous.....	2					3,075	5,745
Oil and grease.....		290	221	1,778	3,166	255	211
Paints and oils.....	55	10		361	31	1,748	2,453
Paper.....	9,604	8,384	10,712	39,591	43,769	59,180	31,337
Pipe and plumbers supplies.....	39	20		416	293	220	908
Potatoes.....	1,641	3,104	1,754	1,750	1,446	133	192
Prunes.....							163
Rags and waste.....					185	17	42
Rugs and matting.....						14	2
Sacks and burlap.....	14	12			138	365	148
Seeds, bulbs and spices.....				98	214	312	368
Salt.....				809	5	777	2,983
Sugar.....				513	177	3,473	4,106
Shells.....				124			
Shingles.....						21	22
Shooks and staves.....		33	1,268	153	136	116	1,285
Shipknees and treenails.....	180	1,066	2,589	38			
Sulphite.....		871	130	735			
Sulphur.....	22			41			
Tea.....							30
Timplate.....				82	11		17
Vinegar and cider.....				209			
Wire and fencing.....	61	118	62	74	146	123	143
Wheat.....	232	343	1			385	38
Wool.....	23	37	82	118	102	1,382	236
Totals.....	18,876	32,605	31,323	90,621	91,384	117,541	118,882

### FREIGHT RECEIVED AT PORTLAND MUNICIPAL TERMINAL NO. 3

(Tons of 2000 pounds)

	*1918	1919	1920	1921	1922
Asbestos .....	255	14	.....	.....	.....
Asphalt .....	.....	599	1,088	.....	.....
Building material .....	59	.....	16	.....	.....
Canned goods .....	43	.....	9	.....	.....
Cord and slabwood.....	12	.....	.....	.....	.....
Coal .....	588	.....	.....	.....	.....
Cotton .....	19	102	52	.....	46
Drugs and chemicals.....	15	19	21	88	213
Drygoods and merchandise..	.....	.....	.....	158	161
Feed, hay and grain.....	89	57	785	1	3
Fertilizer .....	.....	25	.....	1,163	563
Flour .....	6	1,977	2,397	1	.....
Fresh fruit and vegetables...	11	8	2	.....	121
Groceries and confectionery.	8	2	.....	.....	.....
Hardware .....	70	2	80	.....	41
Hemp and cordage.....	.....	.....	.....	.....	68
Hides, rubber and leather goods	.....	.....	.....	.....	98
Household goods and furniture	119	33	12	5	5
Iron and steel, etc.....	117	139	11	.....	.....
Lumber .....	28	4,417	196	.....	9
Lead .....	.....	43	.....	.....	.....
Livestock .....	53	64	31	3	.....
Machinery .....	103	23	3	.....	7
Manufactured wares .....	.....	.....	.....	.....	45
Meats .....	4	2	.....	.....	.....
Metal .....	.....	.....	.....	10	.....
Milk .....	165	102	.....	19	.....
Miscellaneous .....	38	51	190	35	662
Oakum .....	166	.....	.....	.....	.....
Oats .....	.....	667	.....	.....	.....
Paints and oils.....	222	5	.....	.....	.....
Paper .....	.....	.....	.....	.....	72
Potatoes .....	10	13	2	.....	.....
Pipe and plumbers' supplies.	1	106	1	.....	.....
Rags and waste.....	237	106	135	.....	45
Rugs and matting.....	.....	.....	.....	.....	37
Sacks and burlap.....	8	.....	.....	.....	.....
Salt .....	22	.....	.....	.....	.....
Shingles .....	19	.....	.....	156	39
Shipknees and treenails....	95	133	.....	.....	.....
Shooks and staves.....	.....	2,849	.....	.....	8
Sugar .....	.....	.....	.....	.....	7
Tubing .....	19	.....	.....	.....	.....
Vehicles .....	1	.....	3	.....	.....
Wheat .....	1	3,530	.....	.....	.....
Wool .....	431	450	608	1,100	1,686
Totals.....	*3,034	15,538	5,562	2,739	3,936

\* Seven months only.

### FREIGHT RECEIVED AT PORTLAND MUNICIPAL TERMINAL NO 4

(Tons of 2000 pounds)

	*1919	1920	1921	1922
Ammonia .....	615	490	.....	.....
Apples .....	.....	.....	7,303	16,844
Autos and parts.....	275	203	98	74
Bamboo .....	118	84	.....	.....
Barrels and boxes.....	56	156	64	319
Bones .....	89	246	.....	.....
Building material.....	77	419	376	.....
Canned goods .....	4	193	2,269	1,534
Canned milk .....	131	3,058	.....	.....
Cement, lime and plaster....	.....	.....	115	.....
Cigars and tobacco.....	392	119	60	5
Coal .....	.....	986	6,720	6,587
Coffee .....	.....	.....	.....	382
Copper .....	57	.....	.....	.....
Copra .....	.....	.....	250	3,094
Cotton .....	771	7,507	954	.....
Cotton seed cake.....	202	506	.....	.....
Drugs and chemicals.....	40	1,200	254	644
Drygoods and merchandise..	.....	.....	440	.....
Egg case fillers.....	57	156	.....	.....
Feed, hay and grain.....	25	2,796	435	2,248
Fertilizer .....	.....	.....	183	362
Flour .....	13,338	14,828	13,303	13,542
Fruit and vegetables, fresh..	111	114	146	31
Groceries and confectionery.	.....	1,116	692	1,738
Hardware .....	212	1,038	141	.....
Hemp and cordage.....	9,561	2,861	263	446
Hides, rubber and leather goods .....	.....	.....	944	499
Household goods and furniture	9	683	813	54
Iron and steel.....	16,057	21,364	3,258	6,495
Lath .....	.....	.....	3,100	338
Lumber .....	3,247	11,268	31,318	50,014
Machinery .....	1,464	857	573	928
Maize .....	116	.....	.....	.....
Malt .....	30	.....	.....	.....
Manufactured wares .....	15	315	1,266	1,721
Miscellaneous .....	333	11,486	1,822	8,570
Metal .....	37	131	98	2,046
Molasses .....	.....	8,018	.....	.....
Oats .....	355	.....	47	.....
Oils .....	35	4,021	643	3,996
Packing house produce.....	.....	83	.....	.....
Paints .....	.....	.....	.....	511
Paper .....	4,739	5,069	2,755	43,126
Phosphate rock .....	.....	7,301	.....	.....
Piling .....	.....	1,177	1,609	6,510
Pipe and plumbers' supplies.	1,016	1,446	326	2,313
Prunes .....	.....	.....	.....	3,197
Rags and waste.....	.....	.....	41	69

\* Seven months only.

**FREIGHT RECEIVED AT PORTLAND MUNICIPAL  
TERMINAL NO. 4—(Continued)**

(Tons of 2000 pounds)

	*1919	1920	1921	1922
Rice .....	.....	.....	263	5
Rugs and matting.....	86	1,169	141	91
Sacks and burlap.....	.....	3,499	1,520	352
Salt .....	.....	.....	24	.....
Seed .....	.....	.....	1,901	1,215
Shingles .....	771	.....	.....	.....
Shoes and leather goods....	.....	1,131	.....	.....
Shooks and staves.....	534	141	.....	385
Soda .....	1,226	.....	.....	.....
Sugar .....	7	132	20	202
Sulphur .....	.....	12,184	7,045	9,903
Tea .....	7	105	500	781
Tinplate .....	1,629	2,083	148	39
Wheat, sacked .....	868	5,288	87,546	96,674
Wheat, bulk .....	.....	.....	.....	49,134
Wire and fencing.....	643	3,185	.....	2
Wool .....	.....	1,181	88	51
Totals.....	*59,355	141,393	181,775	335,366

\*Seven months only.

**SUMMARY OF TONNAGE HANDLED AT MUNICIPAL TERMINAL NO. 1**  
(Tons of 2000 pounds)

Received	1915	1916	1917	1918	1919	1920	1921	1922
From foreign ports.....	7,882	8,798	7,483	12,413	5,768	4,074	16,934	12,143
From Atlantic ports.....	15,102	619	.....	.....	.....	13,113	45,700	112,223
From Pacific Coast ports.....	3,916	5,519	4,227	933	7,185	9,329	776	3,481
From river points.....	1,912	4,342	4,827	13,623	10,444	13,011	3,056	1,549
Via cars and teams.....	14,347	30,837	47,482	101,246	95,471	69,762	72,125	86,706
Totals.....	43,159	50,115	64,019	128,215	118,868	109,289	138,591	216,102
<b>Delivered</b>								
To foreign ports.....	1,843	1,657	3,745	10,385	38,953	11,974	11,478	18,331
To Atlantic ports.....	3,239	45	135	.....	.....	494	38,382	69,814
To Pacific Coast ports.....	1,491	2,767	3,185	4,347	1,832	1,685	1,261	743
To river points.....	1,347	1,982	3,364	1,931	1,069	5,550	1,444	213
Via cars and teams.....	34,263	42,680	51,126	105,766	80,458	70,007	91,875	136,613
Totals.....	42,183	49,131	61,555	122,429	122,312	89,710	144,440	215,714

**SUMMARY OF TONNAGE HANDLED AT MUNICIPAL TERMINAL NO. 2**  
(Tons of 2000 pounds)

Received		1916	1917	1918	1919	1920	1921	1922
From foreign ports.....		1,875	1,580	2,418	.....	599	1,031	.....
From Atlantic ports.....		.....	.....	.....	.....	309	3,530	3,432
From Pacific Coast ports.....		1,272	1,010	9,972	26,496	27,033	33,745	43,013
From river points.....		13,359	14,977	8,911	42,747	43,997	44,348	30,197
Via cars and teams.....		2,370	15,038	10,022	21,378	19,344	34,887	42,240
Totals.....		18,876	32,605	31,323	90,621	91,282	117,541	118,882
Delivered								
To foreign ports.....		4,471	6,545	629	1,327	.....	986	90
To Atlantic ports.....		.....	.....	.....	.....	96	1,080	925
To Pacific Coast ports.....		6	52	.....	15,950	9,456	36,498	53,511
To river points.....		491	1,239	1,557	2,480	5,555	1,395	2,148
Via cars and teams.....		12,208	23,005	27,429	74,985	75,878	75,157	64,244
Totals.....		17,176	30,841	29,615	94,742	90,985	115,116	120,918

### SUMMARY OF TONNAGE HANDLED AT MUNICIPAL TERMINAL NO. 3

(Tons of 2000 pounds)

Received	*1918	1919	1920	1921	1922
From foreign ports.....	.....	.....	.....	1,120	1,953
From Pacific Coast ports..	211	4,855	1,586	.....	.....
From river points.....	1,056	240	167	100	.....
Via cars and teams.....	1,767	10,443	3,809	1,519	1,974
Totals .....	3,034	15,538	5,562	2,739	3,927
<b>Delivered</b>					
To foreign ports.....	.....	28	.....	.....	230
To Atlantic ports.....	.....	.....	2,396	.....	733
To Pacific Coast ports.....	.....	133	19	.....	.....
To river points.....	168	219	519	532	40
Via cars and teams.....	2,410	14,019	5,878	3,047	2,452
Totals.....	2,578	14,399	8,812	3,579	3,455

\*Seven months only.

### SUMMARY OF TONNAGE HANDLED AT MUNICIPAL TERMINAL NO. 4

(Tons of 2000 pounds)

Received	*1919	1920	1921	1922
From foreign ports.....	9,600	38,181	12,439	22,476
From Atlantic ports.....	.....	12,184	7,045	17,283
From Pacific Coast ports.....	1,179	132	473	1,779
From river points.....	6,172	6,405	7,948	42,867
Via cars and teams.....	42,404	84,485	153,870	250,961
Totals .....	59,355	141,387	181,775	335,366
<b>Delivered</b>				
To foreign ports.....	40,710	87,240	125,514	248,058
To Atlantic ports.....	.....	.....	396	6,060
To Pacific Coast ports.....	250	327	697	52,447
To river points.....	757	710	5,389	1,632
Via cars and teams.....	13,089	39,392	35,653	55,397
Totals.....	54,806	127,669	167,649	363,594

\*Seven months only.

**SUMMARY OF TONNAGE HANDLED AT MUNICIPAL  
TERMINALS NOS. 1, 2, 3 AND 4**

(Tons of 2000 pounds)

<b>Received</b>	<b>*1919</b>	<b>1920</b>	<b>1921</b>	<b>1922</b>
From foreign ports.....	15,368	42,854	31,524	36,572
From Atlantic ports.....	.....	25,606	56,275	132,938
From Pacific Coast ports.....	39,715	38,080	34,994	48,273
From river points.....	59,603	63,580	55,452	74,613
Via cars and teams.....	169,696	177,400	262,401	381,881
<b>Totals.....</b>	<b>284,382</b>	<b>347,520</b>	<b>440,646</b>	<b>674,277</b>
<b>Delivered ....</b>				
To foreign ports.....	81,018	99,214	137,978	266,709
To Atlantic ports.....	.....	2,986	39,858	77,532
To Pacific Coast ports.....	18,165	11,487	38,456	106,701
To river points.....	4,525	12,334	8,760	4,033
Via cars and teams.....	182,551	191,155	205,732	248,706
<b>Totals.....</b>	<b>286,259</b>	<b>317,176</b>	<b>430,784</b>	<b>703,681</b>

\* Includes seven months only at Terminal No. 4.

TABLE 1  
OCEAN COMMERCE AT PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)  
Foreign Exports (Tons)

Month	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
January ....	47,946	68,682	79,806	71,191	14,769	20,780	4,775	42,931	51,587	53,879	148,388
February ..	33,625	38,889	24,789	55,359	22,843	2,481	17,070	22,219	32,556	76,523	105,162
March .....	26,518	49,120	28,238	73,242	26,475	10,812	19,260	24,037	53,746	51,775	124,549
April .....	26,715	11,066	34,117	31,272	18,210	12,724	25,029	16,050	54,178	168,604	107,970
May .....	25,796	61,447	62,732	14,295	18,460	16,063	30,477	58,811	63,528	101,943	57,208
June .....	26,853	41,180	27,752	33,016	.....	21,826	20,015	49,899	107,710	140,450	180,188
July .....	13,134	52,262	39,199	30,865	.....	11,529	13,106	41,933	95,956	135,249	49,331
August .....	36,457	39,498	44,366	32,942	2,033	23,056	3,561	48,644	81,508	160,670	72,345
September .	52,349	87,404	26,021	43,480	8,896	11,771	12,280	43,255	92,056	199,891	151,595
October ....	64,071	70,030	73,818	53,626	.....	13,312	30,730	55,322	110,030	213,170	99,297
November .	59,622	57,159	75,739	40,798	4,572	10,826	30,176	44,820	22,877	163,994	109,168
December ..	73,920	70,949	66,397	35,709	1,672	16,324	21,501	43,998	97,730	160,548	93,915
Totals.....	487,006	647,686	582,974	517,795	117,930	171,504	227,980	491,919	863,462	1,656,702	1,299,516

TABLE 2  
OCEAN COMMERCE AT PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)  
Foreign Imports (Tons)

Month	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
January ....	5,516	1,265	4,070	825	3,656	2,026	1,328	359	544	1,314	8,315
February ...	3,677	4,397	7,222	102	430	1,610	3,778	524	3,894	2,069	5,337
March .....	4,375	8,169	4,543	5,272	4,364	1,128	468	623	2,149	2,054	4,184
April .....	5,258	398	2,172	4,794	2,519	373	1,672	946	1,303	2,799	4,133
May .....	1,371	5,881	15,998	12,137	5,177	515	3,120	1,691	2,392	2,498	3,946
June .....	8,215	7,506	3,865	2,899	1,860	493	1,009	1,139	5,589	2,177	5,914
July .....	5,053	771	7,405	4,608	2,993	494	1,795	692	3,785	2,466	5,279
August .....	4,890	7,523	4,489	2,577	7,819	537	169	389	5,682	1,901	4,820
September .	3,143	5,400	6,139	1,627	1,207	1,533	2,411	2,758	2,235	868	8,376
October ....	1,696	4,829	1,851	429	533	1,945	185	1,555	21,031	3,194	6,200
November .	274	9,318	6,904	577	1,395	5,041	49	3,623	2,888	3,984	4,106
December ..	7,894	2,104	659	636	1,451	3,390	885	2,697	7,523	6,638	1,832
Totals....	52,362	57,561	65,317	36,483	33,404	19,085	16,869	16,996	58,415	31,962	62,442

TABLE 3  
OCEAN COMMERCE AT PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)  
Domestic Exports (Tons)

Month	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
January ....	32,816	50,506	50,724	30,723	32,509	32,874	17,532	5,320	23,055	18,297	25,661
February ...	31,473	47,190	57,876	40,384	30,871	29,917	13,012	7,657	14,322	16,434	26,131
March .....	37,467	57,560	63,999	39,203	36,309	25,805	13,234	10,449	14,372	49,127	26,813
April .....	40,349	64,602	59,635	39,061	45,213	34,249	14,961	13,060	14,703	15,169	27,208
May .....	50,677	68,495	59,636	45,411	45,475	36,480	17,118	24,280	11,351	6,786	32,964
June .....	39,273	60,690	52,506	47,604	24,425	23,738	10,406	16,811	9,890	6,236	26,516
July .....	44,682	49,609	54,868	51,799	22,433	21,544	13,984	12,147	10,334	83,231	24,065
August .....	45,366	52,015	58,450	41,722	34,348	22,156	21,858	17,155	9,018	25,495	24,565
September .	49,011	64,737	49,182	48,926	33,442	23,003	16,260	17,027	13,727	23,961	25,216
October ...	55,012	79,035	55,140	51,245	39,599	24,620	10,609	8,598	17,815	30,575	29,985
November ..	53,925	68,410	41,614	40,795	35,298	22,321	14,050	14,385	17,080	27,404	26,465
December ..	53,334	62,168	30,512	42,407	33,773	23,488	14,299	8,369	10,208	32,095	31,495
Totals.....	533,385	725,017	634,142	519,280	413,695	320,195	177,323	155,458	165,875	334,810	327,084

TABLE 4  
OCEAN COMMERCE AT PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)  
Domestic Imports (Tons)

Month	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
January ....	96,173	93,541	81,100	74,240	83,794	76,577	100,140	92,406	122,604	111,860	116,636
February ...	74,948	81,938	96,678	61,057	69,539	69,499	85,593	100,428	124,160	84,560	94,114
March .....	98,682	94,180	86,159	80,227	119,572	88,285	104,722	103,536	105,783	92,967	98,862
April .....	105,114	107,688	75,878	75,177	63,400	84,924	90,159	79,288	99,372	87,562	92,786
May .....	91,075	73,434	82,202	81,022	92,337	99,629	100,002	107,361	81,873	80,261	99,723
June .....	104,679	103,246	85,933	99,377	75,065	89,619	96,900	101,343	94,298	66,567	142,135
July .....	82,179	116,966	92,301	66,956	94,616	94,490	92,952	119,261	125,035	93,584	108,434
August .....	102,571	106,407	102,479	101,399	80,787	70,048	73,168	93,516	132,688	2,941	123,643
September .	96,669	85,833	70,543	76,405	73,990	81,864	88,168	115,159	79,915	85,532	125,974
October ...	95,986	103,514	63,901	83,862	85,488	91,409	103,581	103,931	113,922	113,572	157,116
November .	99,675	70,695	76,867	80,621	87,999	74,187	81,436	71,463	129,489	105,593	129,918
December .	88,358	95,617	75,381	74,534	106,947	106,670	90,816	99,805	107,120	91,441	166,678
Totals..	1,136,109	1,133,059	990,422	954,877	1,033,534	1,027,201	1,107,637	1,187,517	1,316,759	1,016,440	1,456,019

TABLE 5  
**FOREIGN EXPORTS BY OCEAN GOING VESSELS FROM PORTLAND, OREGON**  
 (Merchants' Exchange Records, Portland, Oregon)

Commodity and unit	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Acetate of lime, lbs..	342,700	.....	.....	.....	.....	.....	422,234	.....	.....	.....
Amonia, lbs.....	.....	.....	.....	.....	.....	.....	1,169,466	.....	.....	.....
Ammunition, lbs....	.....	.....	.....	.....	.....	.....	33,779	.....	.....	.....
Apples, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13,269
Autos, trucks and parts, lbs.....	.....	.....	.....	.....	.....	.....	376,614	229,934	190,739	496,734
Barley, bushels.....	2,014,110	2,153,599	2,071,461	673,851	.....	.....	.....	.....	223,155	.....
Beef casings, lbs....	49,053	78,050	.....	.....	.....	.....	.....	.....	21,120	77,983
Bones, tons.....	.....	.....	.....	.....	.....	.....	44	98	82	124
Box shooks, tons...	.....	.....	.....	.....	.....	814	.....	.....	.....	.....
Bran, tons.....	38	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bldg. material, tons	.....	.....	.....	.....	.....	.....	21	1,351	.....	.....
Butter, lbs.....	.....	.....	.....	.....	.....	.....	.....	2,248	.....	.....
Candy, lbs.....	.....	.....	.....	.....	8,045	.....	10,957	.....	.....	.....
Canned goods, cases	2,808	710	2,395	.....	.....	.....	7,341	84,026	88,636	241,371
Canned Salmon "	8,732	4,400	27,735	8,938	.....	2	5,203	16,589	28,319	.....
Carbon blocks, lbs..	.....	.....	.....	.....	.....	.....	22,500	.....	.....	.....
Cattle Horns, tons.	.....	.....	.....	.....	.....	.....	.....	.....	.....	24
Caustic soda, tons..	.....	.....	.....	.....	.....	.....	1,311	.....	.....	.....
Chemicals, tons.....	.....	.....	.....	.....	.....	.....	.....	2,690	312	493
Cheese, lbs.....	.....	.....	.....	.....	.....	.....	.....	13,373	21,024	10,845
Clothing, dryg'ds, lbs	.....	.....	.....	.....	.....	.....	14,848	.....	.....	9,830
Coal, tons.....	.....	.....	.....	.....	.....	.....	800	.....	.....	.....
Copper, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	386
Cotton, bales.....	3,716	.....	.....	.....	.....	.....	4,557	32,231	4,006	.....
Cascara bark, lbs....	385,750	146,050	82,550	.....	.....	.....	787,793	94,231	186,982	137,780

TABLE 5—(Continued)  
**FOREIGN EXPORTS BY OCEAN GOING VESSELS FROM PORTLAND, OREGON**  
 (Merchants' Exchange Records, Portland, Oregon)

Commodity and unit	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Doors, wooden, lbs....	.....	.....	.....	.....	.....	.....	15,500	.....	151,479	221,817
Drugs, supplies, tons..	.....	.....	.....	.....	.....	.....	.....	.....	.....	24
Dynamite, lbs. ....	51,850	89,323	.....	357,500	.....	.....	.....	.....	221,876	.....
Egg cases, lbs. ....	.....	.....	.....	.....	.....	.....	597,286	401,160	363,580	.....
Electrical goods, pkgs..	.....	.....	.....	.....	.....	.....	410,412	174,310	198,947	158,903
Excelsior, lbs. ....	.....	.....	.....	.....	.....	.....	.....	51,256	.....	.....
Feed, tons. ....	.....	.....	.....	.....	.....	1,443	28	.....	.....	.....
Fertilizer, tons. ....	.....	.....	.....	.....	.....	.....	.....	7,530	.....	.....
Firebrick, fireclay, lbs..	.....	.....	.....	.....	.....	.....	.....	.....	362,000	.....
Flour, bbls. ....	786,202	416,417	355,965	85,903	97,980	1,568,175	2,736,440	2,020,190	1,296,041	1,102,614
Fruit, boxes. ....	6,424	4,285	.....	.....	.....	.....	8,848	5,690	468,559	.....
Graphite ore, lbs. ....	.....	.....	.....	.....	.....	.....	.....	.....	784,400	.....
Hardware, lbs. ....	.....	.....	.....	.....	.....	.....	454,423	394,911	79,678	69,656
Hides, tons. ....	362	249	.....	.....	.....	.....	.....	128	1,521	1,691
Hops, lbs. ....	180,307	281,380	.....	.....	.....	.....	476,933	297,675	1,703,209	55,213
Infusorial earth, tons..	.....	.....	.....	.....	.....	.....	.....	.....	.....	64
Iron and steel, tons. ....	.....	.....	.....	.....	.....	.....	.....	27,424	6,829	8,083
Lard, lbs. ....	382,503	372,502	19,130	16,701	.....	.....	.....	.....	.....	519,820
Loganberry juice, gals..	.....	.....	.....	.....	.....	.....	2,925	3,494	1,746	1,136
Lumber, M. ft. ....	176,091	157,233	60,675	22,317	68,333	45,551	78,242	175,689	174,170	239,904
Machinery, tons. ....	13	2	3	27	17	11	3,875	741	3,654	1,285
Malt, lbs. ....	.....	.....	.....	.....	.....	.....	59,700	.....	.....	.....
Meat, lbs. ....	5,329	7,870	.....	4,375	.....	.....	8,221	.....	193,555	.....
Merchandise, tons. ....	236	657	407	11	1	13	184	1,250	1,506	2,064
Metal, tons. ....	.....	72	20	1,210	367	1,409	22,667	.....	.....	2,190
Milk, canned, lbs. ....	.....	.....	.....	.....	.....	.....	.....	.....	2,030,274	8,390
Millfeed, lbs. ....	.....	.....	.....	.....	.....	.....	.....	.....	127,500	3,201,040

TABLE 5—(Continued)  
**FOREIGN EXPORTS BY OCEAN GOING VESSELS FROM PORTLAND, OREGON**  
 (Merchants' Exchange Records, Portland, Oregon)

Commodity and unit	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Oats, bushels.....	\$,006	609,047	968,460	.....	161,699	.....	26,055	20,518	16,445	8,050
Paints and oils, lbs....	.....	.....	.....	.....	.....	.....	.....	.....	113,483	28,249
Paper, tons.....	23	226	1,808	6,014	.....	.....	3,820	3,373	1,823	3,043
Paraffin wax, lbs.....	.....	.....	.....	.....	.....	.....	.....	.....	895,786	.....
Pears, dried, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63
Pears, fresh, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	200
Plums, dried, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	172
Produce, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prunes, dried, tons.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....
Rubber goods, lbs.....	.....	.....	.....	.....	.....	.....	3,268	.....	.....	5,284
Rye, bushels.....	.....	.....	.....	.....	.....	.....	.....	.....	6,831	39,369
Salmon, tons.....	.....	.....	.....	.....	.....	9,600	.....	.....	.....	419
Salt Fish, lbs.....	50,000	.....	.....	.....	.....	.....	.....	.....	.....	.....
Seeds, lbs.....	.....	.....	.....	.....	.....	.....	33,000	.....	139,118	4,026
Shingles, bdls.....	.....	.....	.....	.....	.....	.....	300	.....	.....	.....
Shoes, lbs.....	.....	.....	.....	.....	.....	.....	2,500	1,277	1,220	.....
Soap, lbs.....	.....	.....	.....	.....	.....	.....	10,218	60,160	1,763	37,989
Staves and heads, lbs..	.....	.....	.....	.....	.....	.....	510,980	937,600	18,332	250,416
Tallow, lbs.....	2,353,831	443,354	.....	.....	.....	.....	155,059	2,700	280,211	93,407
Tinplate, tons.....	.....	.....	.....	.....	.....	.....	.....	1,403	107	.....
Tobacco, lbs.....	.....	.....	.....	.....	.....	.....	1,525,840	.....	.....	.....
Wine, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
Wheat, bushels.....	8,469,769	7,825,172	10,688,609	1,698,463	1,760,403	.....	2,011,273	11,587,275	37,240,987	23,601,755
Wool, lbs.....	.....	.....	.....	.....	.....	.....	.....	73,516	.....	.....
Zinc, lbs.....	.....	.....	.....	.....	.....	.....	.....	.....	200,018	1,748,107

TABLE 6  
**FOREIGN IMPORTS BY OCEAN GOING VESSELS AT PORTLAND, OREGON**  
 (Merchants' Exchange Records, Portland, Oregon)

Commodity and unit..	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Firecrackers, cases.....	93	615	.....	210	487	.....	.....	907	1,435	1,097
Fish, barrels.....	.....	.....	.....	.....	.....	.....	.....	1,543	.....	.....
Antimony, cases.....	.....	.....	.....	.....	.....	.....	.....	1,255	.....	.....
Arsenic, crude, cases..	.....	.....	.....	.....	.....	.....	.....	.....	3,425	587
Basketware, pkgs.....	.....	.....	.....	.....	.....	.....	.....	.....	1,316	729
Bristles, cases.....	.....	.....	.....	.....	.....	.....	.....	.....	3,024	1,997
Buckwheat, bushels.....	.....	.....	.....	.....	.....	.....	.....	5,486	.....	.....
Camphor, tubs.....	.....	20	.....	30	13	.....	4	.....	.....	1,068
Carpets, rugs, cases.....	.....	.....	.....	.....	.....	.....	.....	.....	1,107	1,074
Cement, bbls.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cigars and tobacco, pkgs.	.....	.....	.....	.....	.....	.....	.....	.....	.....	87
Coal and coke, tons.....	44,482	4,535	.....	120	90	30	165	1,370	1,756	7,332
Cocoonut oil, bbls.....	.....	.....	.....	.....	.....	1,782	.....	.....	.....	24,804
Coffee, sacks.....	17,316	15,624	5,526	4,173	652	.....	.....	3,361	29,142	26,294
Copra, tons.....	.....	.....	.....	722	10,373	9,421	4,522	2,472	1,542	17,043
Corn, bushels.....	.....	.....	.....	.....	.....	.....	.....	45,818	.....	.....
Cottonseed oil, bbls.....	.....	.....	.....	.....	.....	.....	.....	250	.....	.....
Cotton waste, bales.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,073
Cake Meal, tons.....	.....	.....	.....	.....	.....	.....	.....	1,835	.....	.....
Creosote, bbls.....	14,466	210	14,346	11,905	.....	.....	.....	25,724	.....	.....
Curios and merchandise, pkgs.....	11,699	30,387	18,166	57,949	13,262	8,947	10,665	15,087	13,491	18,269
Cedar lumber, M. ft.....	.....	.....	.....	.....	.....	.....	.....	100	.....	.....
Earthenware, pkgs.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,322
Eggs, cases.....	.....	7,100	2,400	8	36	.....	.....	.....	.....	.....
Fertilizer, bags.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,000
Flax, bales.....	.....	.....	.....	.....	.....	.....	.....	620	.....	.....
Fire brick, tons.....	6,222	2,571	.....	.....	.....	.....	.....	.....	.....	75
Fire clay, tons.....	398	350	.....	.....	.....	.....	.....	.....	.....	.....
Furniture, pkgs.....	.....	.....	.....	.....	.....	.....	.....	.....	1,304	1,465
Furs, bales.....	.....	.....	.....	.....	.....	.....	.....	545	570	809

TABLE 6—(Continued)  
**FOREIGN IMPORTS BY OCEAN GOING VESSELS AT PORTLAND, OREGON**  
 (Merchants' Exchange Records, Portland, Oregon)

Commodity and unit	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Glass, cases.....		24,939								
Grain bags, bales.....		10,428	15,086	8,578			156	7,930	2,909	1,210
Graphite, barrels.....	3,221							1,038		
Gum Copal, pkgs.....								1,095		
Hair, bales.....								595	1,359	605
Hardwood, M. ft.....	10,272	8,330	1,873	3,436	359	770	17		201	142
Hemp, bales.....	34	7,257	3,215	7,658	4,694	2,684	33,136	16,157	2,942	7,980
Herring, kegs.....									4,040	4,483
Hides, bdls.....				8,350	6,159	1,336	1,810	2,876	2,260	
Iron and steel, tons...	1,193	5,456	177	68	357	477	272		409	677
Linseed, bags.....			19,121	26,053	12,656		5,148	45,343	21,566	48,907
Linseed oil, drums...									1,032	2,836
Liquor, casks.....	326	359	84							
Liquor, cases.....	6,411	5,744	641							
Machinery, pkgs.....						479	1,465	105		
Maize, bushels.....		20,857	93,896				2,305			
Manganese ore, tons...									50	
Matting, rolls.....		186	172	347			386	11,286	2,141	323
Matches, cases.....									625	
Mill feed, tons.....			1,233	250	16		25			
Nitrate soda, bags....										
Nuts, bags.....								37,159	191	18,671
Oats, bushels.....									4,705	8,843
Paper, pkgs.....						21,525	22,300		2,500	
Peanuts, bags.....	1,100	16,433	3,400	2,931	2,993		100	10,105	19,921	7,551
Pepper, bags.....	275	905	50						2,642	16,339
Pig iron, tons.....	1,530	3,250	100					883	1,775	925
Pineapples, cases.....	1,026	1,501						1,000	14,000	1,000
Provisions, pkgs.....	9,891	18,408	18,517	27,738	29,980	9,099	18,728	14,872	21,635	16,415

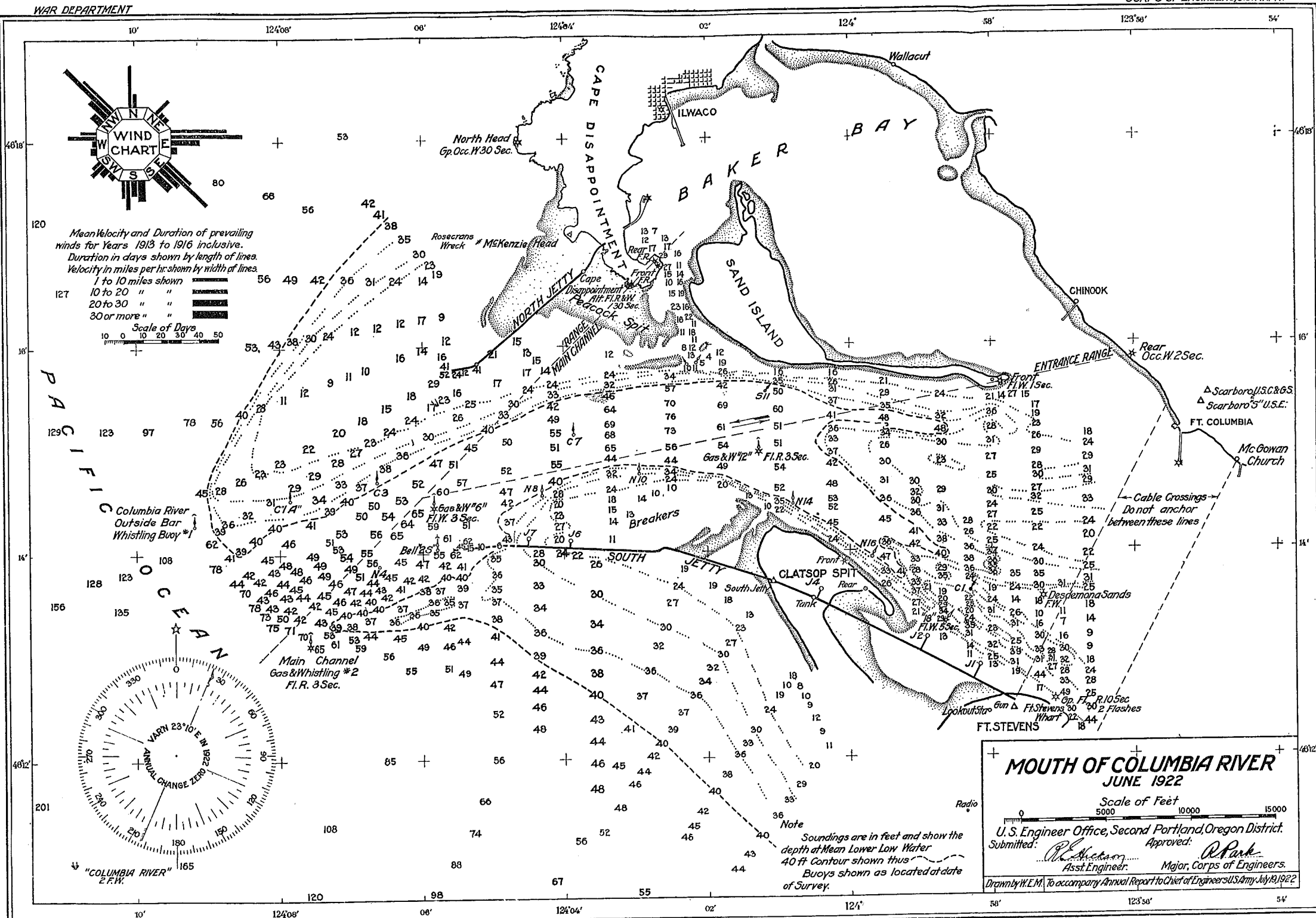


TABLE 6—(Continued)  
**FOREIGN IMPORTS BY OCEAN GOING VESSELS AT PORTLAND, OREGON**  
 (Merchants' Exchange Records, Portland, Oregon)

Commodity and unit	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Rice, sacks.....	2,170	26,996	10,315	14,606	18,722	7,414	1,457	6,338	10,285	6,441
Rubber, pkgs.....	.....	.....	.....	.....	.....	.....	17,656	.....	.....	1,060
Rye, bushels.....	.....	.....	.....	.....	.....	1,300	.....	.....	.....	.....
Seeds, bags.....	1,175	2,271	10,736	2,397	4,621	3,884	2,730	23,015	4,229	6,028
Silk, silkgoods, bales..	7	20	26	126	154	115	205	289	207	39
Silver sand, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	300	113
Soda ash, bags.....	.....	.....	.....	.....	.....	.....	.....	.....	1,700	1,500
Soya bean oil, tons.....	.....	.....	.....	.....	.....	.....	.....	6,221	.....	.....
Soya Bean cake, tons..	.....	.....	.....	.....	.....	.....	.....	1,009	1,146	1,894
Spices, bags.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Strawbraid, cases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Straw rugs, bales.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,191
Sugar, bags.....	736	697	2,211	200	32	.....	150	4,551	401	3,433
Sulphur, tons.....	4,441	7,432	7,724	7,026	609	.....	.....	.....	.....	12,350
Tallow, tons.....	.....	.....	.....	.....	.....	22	13	.....	.....	121
Tapioca, bags.....	895	1,210	.....	.....	.....	.....	.....	570	86	.....
Tea, pkgs.....	4,639	3,922	3,417	6,755	3,522	5,695	3,502	6,041	869	22,428
Tin, slabs.....	355	410	318	932	1,463	100	764	1,100	538	110
Tobacco, cigars, pkgs..	.....	.....	.....	.....	.....	.....	357	659	156	.....
Toys, pkgs.....	.....	.....	.....	.....	.....	.....	.....	.....	1,223	2,340
Vegetable oil, tons	.....	.....	.....	.....	.....	.....	.....	1,297	807	.....
Walnuts, bags.....	.....	.....	.....	.....	.....	.....	.....	619	.....	.....
Walrus tusks, bales...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wax, bags.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,800
Wheat, bushels.....	.....	.....	.....	.....	.....	25,631	.....	27,793	.....	.....
Window glass, cases...	.....	.....	.....	.....	.....	.....	.....	.....	98,770	70,845
Wood, pulp, rolls.....	.....	5,408	409	.....	.....	.....	.....	.....	.....	.....
Wool, bales.....	.....	.....	.....	.....	.....	5,316	100	910	14,435	13,723

TABLE 7  
DOMESTIC EXPORTS BY OCEAN GOING VESSELS FROM PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)

Commodity and unit	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Apples, fresh, tons.	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,977
Apples, dried, tons.	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
Autos, tons	.....	.....	.....	.....	.....	.....	.....	.....	134	197
Balsam, fir, tons....	.....	.....	.....	.....	.....	.....	.....	.....	8	26
Barley, bushels ....	848,409	43,291	136,583	3,503	72,202	667	1,446	2,519	4,418	83
Beef casings, tons..	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
Beverages, tons ...	.....	.....	.....	.....	.....	.....	.....	.....	29	.....
Butter, tons .....	.....	.....	.....	.....	.....	.....	.....	.....	24	271
Canned fruit, cases.	68,769	80,148	114,307	54,875	.....	76,731	43,389	.....	.....	.....
Canned goods, cases	.....	.....	.....	.....	.....	.....	.....	140,141	319,140	679,740
Canned salmon, "	34,822	133,042	138,100	22,109	12,754	17,217	7,590	.....	98,715	.....
Cascara bark, tons.	.....	.....	.....	.....	.....	.....	.....	.....	166	429
Cereals, tons .....	.....	.....	.....	.....	.....	.....	.....	.....	350	2,000
Cheese, cases .....	.....	.....	.....	.....	.....	11,111	3,729	9,346	3,830	5,393
Chemicals, tons ...	.....	.....	.....	.....	.....	.....	.....	.....	74	320
Coal, tons .....	1,310	1,348	940	882	704	779	882	.....	.....	.....
Condensed milk, cases	60,050	64,659	86,067	99,664	108,937	120,167	44,667	40,056	.....	.....
Confectionery, tons.	.....	.....	.....	.....	.....	.....	5,316	.....	53	285
Corn, bushels .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Copper, brass, tons.	.....	.....	.....	.....	.....	.....	.....	.....	8	133
Crossarms, tons ...	.....	.....	.....	.....	.....	.....	.....	.....	56	803
Dried fruit, cases..	163,965	176,947	86,658	.....	.....	.....	.....	.....	13	67
Drugs, medicines, tons	.....	.....	.....	.....	.....	.....	.....	.....	302	4,961
Doors, tons .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Drygoods and clothing, tons ...	.....	.....	.....	.....	.....	.....	.....	.....	125	584
Eggs, tons .....	.....	.....	.....	.....	.....	.....	.....	.....	17	.....
Electrical goods, tons	.....	.....	.....	.....	.....	.....	.....	.....	75	179
Fruits, canned, tons	.....	.....	.....	.....	.....	.....	.....	.....	.....	139
Fruits, vegetables, tons	.....	2,227	1,945	2,511	2,241	1,393	615	913	5,360	3,654

TABLE 7—(Continued)  
**DOMESTIC EXPORTS BY OCEAN GOING VESSELS FROM PORTLAND, OREGON**  
 (Merchants' Exchange Records, Portland, Oregon)

Commodity and unit	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Flour, bbls. ....	431,788	500,225	641,331	600,746	488,388	139,541	170,171	200,019	507,624	551,223
Fruit juice, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	100	69
Furniture, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
Glassware, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	59	240
Grain bags, bales. ....	.....	.....	771	1,099	1,226	4,847	1,574	1,531	361	1,209
Grape root, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	24	19
Groceries, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	195	1,700
Hardware, tons. ....	1,978	5,546	3,479	2,145	1,390	1,204	778	1,065	465	925
Hay, tons. ....	1,306	1,353	392	405	190	.....	.....	.....	1,451	14
Hides, bbls. ....	2,534	848	657	628	3,758	1,209	797	3,862	17,623	99,717
Hops, bales. ....	704	3,146	1,672	399	265	541	.....	.....	1,611	108
Household g'ds, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	427	1,928
Horse hair, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	35	62
Infusorial earth, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	698	1,293
Iron and steel, tons. ....	1,878	2,302	5,640	1,073	614	1,017	309	1,317	681	4,477
Lard and sub'ts, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	20	.....
Lead, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	5,738	5,305
Liquor, pkgs. ....	2,136	6,080	4,265	.....	.....	.....	.....	.....	.....	.....
Lumber, M. ft. ....	228,997	193,352	146,838	107,630	71,438	55,662	56,619	46,900	39,727	253,078
Machinery, pkgs. ....	1,982	2,269	518	384	1,073	9,338	17,357	14,381	30,520	937
Meal, cocoa, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	265
Meats, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	64	90
Merchandise, tons. ....	30,567	47,535	43,135	53,429	58,528	30,033	10,168	14,525	13,044	11,574
Milk, canned, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	1,159	4,623
Millfeed, tons. ....	24,269	19,526	25,817	19,072	20,621	4,063	6,504	6,445	12,925	21,964
Mohair, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	35	334
Oats, bushels. ....	733,102	555,882	358,657	859,586	788,014	35,848	14,065	61,683	235,545	118,829
Oils, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	177	212
Paints, tons. ....	.....	.....	.....	.....	.....	.....	.....	.....	74	387
Paper, tons. ....	18,169	18,987	23,683	32,760	25,394	22,161	15,086	33,472	37,691	79,620



TABLE 8  
DOMESTIC IMPORTS BY OCEAN GOING VESSELS AT PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)

Commodity and unit	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
<b>Agricultural Implements</b>										
Ammonia, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	175
Asphaltum, bbls.....	111,519	53,416	90,277	74,261	46,158	24,415	73,804	77,706	29,306	76
Autos, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	101	580
Auto supplies, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	285	1,967
Barley, bushels.....	.....	.....	.....	.....	.....	.....	.....	10,136	37,592	801,480
Beverages, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	90	724
Butter, cases.....	15,151	14,997	13,940	4,250	1,902	2,407	1,711	1,779	6,406	5,396
Canned goods, cases.....	223,189	214,495	241,072	176,523	195,474	191,608	115,832	251,158	297,400	433,980
Carpets, rugs, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	95	295
Cement, sacks.....	2,459,980	1,158,241	843,329	840,765	327,032	232,546	729,910	450,163	571,625	642,166
Cheese, cases.....	13,399	20,469	17,169	20,538	2,025	854	1,295	766	2,844	3,771
Chemicals, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	1,878	70,818
Coal, tons.....	1	601	1,188	870	813	336	3	76	3,259	3,997
Coffee, sacks.....	14,071	31,423	33,302	43,372	35,916	48,093	30,230	50,455	48,850	70,792
Confectionery, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	804	1,966
Cooking oil, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	170	.....
Copper and brass, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	349	454
Corn, bushels.....	.....	.....	.....	.....	.....	.....	.....	.....	10,714	.....
Cotton, fabrics, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	81	405
Dyestuffs, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	53	51
Drygoods and merchandise, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	814	4,530
Drugs, medicines, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	970	3,066
Electrical goods, pkgs.....	19,350	17,756	6,708	5,469	4,294	7,781	5,554	14,191	35,181	107,088
Fibers, tons.....	.....	.....	.....	.....	.....	.....	.....	.....	215	574
Fruits, vegetables, tons.....	7,874	8,062	6,125	6,325	8,041	3,431	1,936	2,898	2,418	5,085



TABLE 8—(Continued)

DOMESTIC IMPORTS BY OCEAN GOING VESSELS AT PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)

[illegible]



TABLE 9  
SHIPMENTS OF GRAIN BY OCEAN GOING VESSELS FROM PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)

Bushels

Year	Wheat		Barley		Oats	
	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic
1908.....	13,039,936	3,441,601	977,057	353,531	188	203,784
1909.....	5,568,181	4,434,423	490,134	10,515	.....	245,487
1910.....	5,187,865	3,568,481	.....	2,104	.....	112,492
1911.....	7,718,861	3,143,763	.....	.....	97	173,792
1912.....	7,340,194	4,822,382	1,250,578	600,522	135,316	342,333
1913.....	8,469,769	7,141,169	2,014,110	848,409	8,006	733,102
1914.....	7,825,172	5,037,318	2,153,599	43,291	609,047	555,882
1915.....	10,668,609	3,184,834	2,071,461	136,583	968,460	358,657
1916.....	1,698,463	1,553,376	673,851	3,503	.....	859,586
1917.....	1,760,403	819,305	.....	72,202	161,699	788,014
1918.....	.....	1,009	.....	667	.....	35,848
1919.....	2,011,273	98,500	.....	1,446	26,035	14,065
1920.....	11,578,275	13,711	.....	2,519	20,518	61,813
1921.....	37,240,987	206,669	223,155	4,418	16,445	235,545
1922.....	23,601,755	45,125	.....	71	8,050	119,139

TABLE 10  
SHIPMENTS OF FLOUR AND LUMBER BY OCEAN GOING VESSELS FROM PORTLAND, OREGON  
(Merchants' Exchange Records, Portland, Oregon)

	Flour (bbls.)		Lumber (M. F. B. M.)	
	Foreign	Domestic	Foreign	Domestic
1908.....	684,648	254,104	100,686	61,089
1909.....	363,088	268,957	89,261	97,749
1910.....	286,566	280,439	124,975	80,561
1911.....	743,079	339,673	76,780	126,168
1912.....	650,426	364,349	113,047	169,464
1913.....	786,202	431,788	176,091	228,997
1914.....	416,417	500,225	157,233	193,352
1915.....	355,965	641,231	60,675	146,838
1916.....	85,903	600,746	22,317	107,630
1917.....	97,980	488,388	68,333	71,438
1918.....	1,568,175	139,541	45,551	55,662
1919.....	2,756,440	170,171	78,242	56,619
1920.....	1,941,370	200,019	175,689	46,900
1921.....	1,296,041	507,307	174,170	39,727
1922.....	1,102,614	550,707	239,904	96,241

TABLE 11  
IMPORTS BY COMMODITIES AT PORT OF PORTLAND, OREGON, FOR FISCAL YEARS ENDING  
JUNE 30  
(U. S. Custom House Records, Portland, Oregon)

Commodity	1914	1915	1916	1917	1918	1919	1920	1921	1922
Bags and burlap..	\$1,244,962	\$1,236,294	\$1,224,587	\$412,807	\$.....	\$201,745	\$596,663	\$1,156,111	\$100,321
Butter .....	.....	.....	.....	.....	.....	11,836	.....	.....	.....
Cement .....	.....	.....	.....	8,077	.....	.....	.....	.....	.....
Chemicals .....	36,286	20,171	6,324	.....	11,522	20,968	.....	.....	.....
Coal .....	24,104	19,380	9,912	11,744	.....	38,044	.....	.....	.....
Coffee .....	326,305	89,853	81,626	11,610	.....	.....	.....	127,140	735,011
Coke .....	14,375	9,640	.....	.....	.....	.....	.....	4,000	.....
Copra .....	.....	.....	58,962	168,802	2,029,876	732,940	384,972	.....	742,100
Corn .....	.....	66,374	6,930	.....	.....	.....	.....	.....	.....
Cotton, Mfs. ....	36,689	38,150	42,997	24,879	27,071	20,214	87,440	99,205	51,211
Creosote .....	.....	76,825	.....	.....	.....	.....	127,625	198,875	.....
Earthenware .....	93,081	38,544	31,075	25,660	37,071	20,109	38,075	83,325	93,302
Equipment for vessels .....	.....	.....	.....	.....	269,146	141,063	.....	.....	.....
Fibres .....	242,849	106,380	171,996	322,748	120,391	109,511	114,551	162,137	97,817
Fire brick .....	19,864	3,494	.....	.....	.....	.....	.....	.....	.....
Glass .....	.....	.....	.....	.....	.....	.....	.....	120,706	302,902
Hemp .....	.....	.....	.....	.....	.....	.....	1,267,093	250,843	127,698
Hides, pelts, tallow .....	.....	17,133	21,293	112,135	29,867	42,198	40,529	3,146	.....
Household goods .....	.....	.....	32,033	55,676	38,826	35,865	78,847	61,009	71,722
Iron and steel .....	145,156	106,219	.....	.....	.....	111,087	26,004	74,439	97,313
Linseed .....	.....	.....	.....	.....	.....	.....	.....	.....	166,924
Lumber .....	.....	96,920	93,173	32,200	73,419	.....	.....	.....	.....
Maple sugar .....	.....	.....	.....	.....	.....	10,979	.....	.....	.....
Machinery .....	.....	.....	.....	.....	.....	.....	8,568	9,634	.....
Matting .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous ....	825,708	595,575	228,886	376,572	224,103	266,840	844,327	1,068,822	1,448,265
Nitrates .....	.....	.....	.....	.....	.....	.....	84,531	152,738	47,629

TABLE 11—(Continued)  
**IMPORTS BY COMMODITIES AT PORT OF PORTLAND, OREGON, FOR FISCAL YEARS ENDING  
 JUNE 30**  
 (U. S. Custom House Records, Portland, Oregon)

Commodity	1914	1915	1916	1917	1918	1919	1920	1921	1922
Oats .....	.....	.....	.....	.....	27,175	20,438	.....	.....	.....
Oil cake .....	.....	.....	10,284	.....	.....	.....	19,822	127,842	201,301
Oils .....	27,469	154,938	11,249	16,008	8,541	9,034	.....	.....	40,340
Peanut oil .....	.....	.....	.....	.....	.....	.....	35,678	1,645	1,431
Peanuts .....	.....	.....	.....	.....	4,666	.....	.....	.....	.....
Provisions .....	.....	.....	.....	.....	.....	.....	61,027	.....	.....
Rice .....	101,487	65,153	61,821	72,502	72,429	6,321	15,805	27,907	17,102
Rubber .....	.....	.....	.....	.....	.....	.....	1,415,750	4,077	17,412
Seeds, plants, bulbs .....	60,802	98,016	124,237	160,234	63,104	31,512	875,472	302,189	19,010
Silk .....	36,793	33,400	41,500	.....	67,216	36,278	146,043	197,829	265,267
Soya bean oil .....	.....	.....	.....	.....	.....	.....	561,457	348,396	.....
Spices .....	13,639	17,871	5,844	.....	.....	.....	.....	.....	.....
Spirits .....	61,112	17,960	.....	.....	.....	.....	42,752	31,718	20,734
Sugar .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sulphur .....	125,492	183,926	62,856	84,809	.....	.....	.....	75,572	32,672
Table food prep'tns .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tapioca .....	7,078	4,772	.....	.....	.....	.....	.....	.....	.....
Tea .....	86,338	74,813	71,459	64,426	104,194	81,438	38,219	65,910	303,273
Tin, in bars .....	48,814	3,477	10,704	4,221	6,419	36,490	53,299	45,855	18,390
Tobacco .....	.....	15,125	9,799	19,501	13,447	17,178	.....	.....	.....
Toys .....	40,738	24,221	3,260	15,526	.....	.....	19,650	53,621	88,832
Vegetables .....	.....	.....	.....	.....	54,949	25,002	.....	.....	.....
Wheat .....	.....	.....	.....	.....	78,900	.....	40,200	15,193	.....
Wood .....	251,766	15,392	9,727	14,344	11,285	30,387	.....	.....	.....
Wool and wool manufactures ..	21,315	20,498	6,605	10,633	7,111	1,167,911	18,323	144,315	1,422,356
Totals .....	\$3,890,222	\$3,250,514	\$2,439,139	\$2,025,114	\$3,380,728	\$3,225,388	\$7,042,702	\$5,014,199	\$6,530,395

TABLE 12  
IMPORTS BY COUNTRIES AT PORT OF PORTLAND, OREGON, FOR FISCAL YEARS ENDING  
JUNE 30  
(U. S. Custom House Records, Portland, Oregon)

	1914	1915	1916	1917	1918	1919	1920	1921	1922
<b>Africa</b>									
British East .....	\$.....	\$.....	\$.....	\$.....	\$.....	\$.....	\$.....	\$.....	\$ 24,447
British South .....	4	39	.....	.....	.....	.....	.....	1,142	.....
French .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Canary Islands .....	114	.....	.....	.....	.....	.....	.....	.....	.....
Egypt .....	17	.....	.....	.....	.....	.....	349	.....	.....
<b>Asia</b>									
China .....	53,581	101,502	71,842	117,986	70,957	42,805	296,161	530,798	1,569,814
East Indies, Br....	5,655	74,148	384	1,548	1,555	126,742	289	3,384	.....
East Indies, Dutch.	109,334	27,176	9,959	13,336	.....	76,256	3,318	52,641	101,474
Hong Kong .....	146,318	93,885	68,799	69,429	68,257	42,278	114,165	169,934	101,732
India, British .....	1,193,096	1,250,578	1,279,910	419,695	.....	126,113	598,368	1,169,232	114,485
Japan .....	595,848	571,632	392,117	454,269	440,036	169,433	834,973	807,264	896,152
Korea .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kwantung .....	.....	.....	.....	.....	.....	.....	191,308	380,010	77,322
Persia .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Russia, Asiatic .....	.....	.....	.....	125	.....	.....	776,115	140,694	.....
Straits Settlements.	43,439	17,505	13,725	4,249	.....	36,490	1,463,147	31,104	21,779
All other ports....	6,174	451	.....	.....	.....	.....	.....	.....	.....
Siam .....	.....	.....	.....	.....	91	.....	1	.....	.....

TABLE 12—(Continued)

IMPORTS BY COUNTRIES AT PORT OF PORTLAND, OREGON, FOR FISCAL YEARS ENDING  
JUNE 30  
(U. S. Custom House Records, Portland, Oregon)

	1914	1915	1916	1917	1918	1919	1920	1921	1922
<b>Oceania</b>									
Australia .....	\$ 18,744	\$ 14,508	\$ 73,816	\$ .....	\$1,658,877	\$1,582,129	\$ 6,391	\$ 4,521	\$ 33,217
British Oceania...	1,262	.....	.....	111,035	313,196	80,033	346,934	.....	76,950
Hawaii .....	.....	.....	.....	.....	300	.....	.....	.....	.....
New Zealand...	8,014	20	4,251	14,895	3,941	143,862	88,384	2,674	1,276
Philippines .....	238,753	158,704	122,617	330,823	185,938	123,645	1,356,055	379,827	1,289,045
<b>Europe</b>									
Austria Hungary..	16,330	10,116	100	50	.....	.....	.....	2,941	909
Belgium .....	54,318	121,250	.....	.....	.....	.....	8,263	131,309	336,923
Czecho-Slovakia ..	.....	.....	.....	.....	.....	.....	.....	205	3,365
Denmark .....	3,971	5,249	1,142	610	125	.....	983	16,878	2,372
Finland .....	.....	.....	.....	.....	.....	.....	.....	.....	828
France .....	50,503	29,181	13,955	3,941	10,632	1,224	38,485	46,369	63,003
Germany .....	314,274	195,249	1,101	11,686	.....	177	1,162	62,553	156,999
Gibraltar .....	.....	.....	.....	.....	.....	.....	799	.....	.....
Greece .....	12,172	11,360	4,995	6,813	.....	.....	4,560	15,758	18,397
Ireland .....	.....	.....	.....	.....	.....	.....	.....	.....	4,281
Italy .....	27,798	25,494	7,114	8,700	4,104	3,188	13,410	7,693	36,544
Netherlands .....	52,818	18,436	14,447	20,023	2,509	.....	140,424	25,013	81,105
Norway .....	21,430	32,377	10,396	1,992	1,035	799	7,303	34,848	78,405
Portugal .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Russia .....	64	15	.....	.....	.....	.....	.....	.....	.....
Spain .....	476	1,986	1,232	1,883	.....	.....	.....	.....	.....
Sweden .....	13,737	14,910	46,769	181	.....	.....	164	9,532	74,794
Switzerland .....	1,336	60	62	14	16	.....	44	379	1,104
Turkey .....	171	.....	.....	.....	.....	.....	.....	4,060	.....
United Kingdom..	356,098	248,046	103,191	114,324	274,072	192,228	184,044	472,307	369,013

TABLE 12—(Continued)  
 IMPORTS BY COUNTRIES AT PORT OF PORTLAND, OREGON, FOR FISCAL YEARS ENDING  
 JUNE 30  
 (U. S. Custom House Records, Portland, Oregon)

	1914	1915	1916	1917	1918	1919	1920	1921	1922
<b>North America</b>									
Canada .....	\$ 222,449	\$ 128,298	\$ 111,089	\$ 301,775	\$ 341,338	\$ 474,095	\$ 518,706	\$ 179,221	\$ 154,203
Cuba .....	17,005	13,461	6,053	4,311	3,493	2,641	12,557	12,154	.....
Guatemala .....	6,337	4,980	13,291	10,375	.....	.....	.....	5,826	.....
Jamaica .....	.....	180	.....	.....	.....	.....	.....	.....	.....
Mexico .....	36,763	28	.....	.....	276	.....	.....	.....	.....
Nicaragua .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Panama .....	.....	.....	.....	.....	.....	.....	.....	.....	67,098
Salvador .....	27	193	215	800	.....	1,250	.....	.....	800
West Indies, Br... ..	2	.....	.....	.....	.....	.....	.....	.....	18,270
<b>South America</b>									
Argentina .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brazil .....	.....	10	.....	.....	.....	.....	.....	.....	61,981
Chile .....	255,668	79,581	69,950	46	.....	.....	.....	153,880	398,489
Colombia .....	6,059	.....	.....	.....	.....	.....	35,678	122,394	47,629
Peru .....	.....	.....	.....	.....	.....	.....	.....	19,469	245,875
All other ports ...	43	6	617	.....	.....	.....	163	18,255	.....
Totals .....	\$3,890,222	\$3,250,514	\$2,439,139	\$2,025,114	\$3,380,728	\$3,225,388	\$7,042,702	\$5,014,199	\$6,530,395

TABLE 13  
**EXPORTS BY COMMODITIES AT PORT OF PORTLAND, OREGON, FOR FISCAL YEARS ENDING JUNE 30**  
 (U. S. Custom House Records, Portland, Oregon)

	1914	1915	1916	1917	1918	1919	1920	1921	1922
Autos and cycles.....\$				\$		\$101,931	\$92,228	\$101,758	\$105,522
Barley .....	1,956,229	974,994	1,398,242					49,000	109,848
Caustic soda .....							227,964		
Coal .....							85,388	3,675	
Copper .....			55,470			642,053			
Cordage .....						8,058			
Cotton .....							6,855,507	233,646	82,962
Explosives .....	11,086								
Fuel, gas and oil .....							12,219		
Fish .....	9,391	64,647	60,257	36,105					
Flour .....	2,728,595	1,898,832	1,199,136	3,600	6,751,045	23,088,049	16,931,906	10,328,925	7,667,267
Fruits .....		18,905						155,384	1,861,285
Hides .....	176,347	8,679						84,993	433,386
Hops .....		42,207					217,768	120,315	21,090
Iron and steel mfgs .....			63,617	163,025	102,150	1,156,280	2,999,506	1,295,017	824,892
Lard .....	55,392								
Lumber .....	3,086,656	1,482,742	634,473	830,808	1,835,117	1,550,953	5,304,302	5,375,302	9,108,117
Machinery .....	13,604						891,539	1,129,749	833,983
Miscellaneous .....	34,028	47,500	28,592	5,519	80,129	92,898	1,036,909	674,522	1,385,793
Milk, condensed .....		7,225			39,270		287,598	482,326	219,191
Oats .....	3,825	751,446	39,000						
Oatmeal .....					253,193				
Paper .....	15,348	14,483	148,000	131,928			488,066	343,366	270,702
Paraffin .....						121,928		106,414	
Railroad ties .....					64,869		614,146	1,089,797	91,174
Salmon, canned .....							97,392	453,633	739,718
Tablefood prepar'tns .....					121,679	85,417			
Tallow .....	34,298	4,296				171,312			
Tinplate .....							391,874	44,860	
Tobacco .....						261,710			
Wheat .....	5,672,938	15,030,500	7,027,704	3,019,710	957,993	3,237,930	6,298,579	47,057,289	42,346,440
Wood manufactures .....	5,763	21,649							
Wood pulp .....		38,161							
Totals.....\$	\$13,806,500	\$20,406,266	\$10,654,491	\$4,190,695	\$10,205,445	\$30,518,519	\$42,812,891	\$69,129,971	\$66,101,370

TABLE 14  
EXPORTS BY COUNTRIES AT PORT OF PORTLAND, OREGON, FOR FISCAL YEARS ENDING  
JUNE 30  
(U. S. Custom House Records, Portland, Oregon)

	1914	1915	1916	1917	1918	1919	1920	1921	1922
<b>Africa</b>									
British East.....	.....	.....	.....	.....	.....	\$27,630	.....	.....	.....
French.....	.....	.....	.....	.....	.....	.....	.....	\$754,936	\$362
British South.....	\$65,540	\$1,656,644	\$276,160	\$6,579	\$45,911	59,787	\$175,967	\$50,573	78,714
Egypt.....	.....	.....	.....	.....	.....	.....	833,460	785,945	5,875
<b>Asia</b>									
China.....	1,033,433	445,097	336,594	140,768	301,144	978,783	3,306,796	4,172,102	5,115,929
China, Jap.....	347,650	.....	.....	.....	.....	.....	304,049	.....	.....
E. Indies, Dutch..	216	3,000	.....	.....	.....	.....	785	553,806	46,242
British E. Indies.	.....	.....	.....	.....	.....	.....	6	.....	343
Hong Kong.....	1,469,818	537,679	.....	87	.....	337,717	780,239	496,440	901,154
India, British....	135,417	255,387	8,200	218,572	.....	.....	140,684	206,607	1,539,682
Japan.....	2,159,741	108,043	1,500	.....	176,150	25,000	11,933,714	3,042,547	15,511,897
Korea.....	70	.....	.....	.....	.....	.....	910	40	206,223
Kwantung.....	.....	.....	.....	.....	.....	.....	.....	242,816	1,410,150
Russia, Asia.....	661	.....	.....	.....	.....	.....	.....	894	180,495
Straits Settlements	1,047	2,206	.....	.....	.....	.....	1,041	2,125	317
Siam.....	100	.....	.....	.....	.....	.....	509	450	2,275
<b>Europe</b>									
Belgium.....	182,209	191,070	.....	.....	.....	.....	.....	1,103,899	563,876
Danish and Poland	.....	.....	.....	.....	.....	.....	.....	551,576	.....
Denmark.....	2,880	.....	.....	.....	.....	.....	.....	204	110,094
France.....	8,412	297,584	216,460	.....	6,068,371	26,035,785	13,232,658	2,461,650	558,592
Germany.....	10,706	1,266	.....	.....	.....	.....	.....	5,903,846	2,113,685
Gibraltar.....	.....	.....	.....	.....	.....	.....	.....	440,000	299,000
Greece.....	.....	.....	.....	.....	.....	.....	.....	1,093	.....
Ireland.....	.....	.....	.....	.....	.....	.....	.....	.....	6,240,897
Italy.....	.....	.....	205,195	.....	.....	450,000	.....	4,098,721	1,413,666
Netherlands.....	1,642	190,361	.....	.....	.....	.....	58,675	2,787,113	1,117,095
Norway.....	.....	.....	.....	.....	.....	.....	46	.....	4,008

TABLE 14—Continued)  
**EXPORTS BY COUNTIES AT PORT OF PORTLAND, OREGON, FOR FISCAL YEARS ENDING JUNE 30**  
 (U. S. Custom House Records, Portland, Oregon)

	1914	1915	1916	1917	1918	1919	1920	1921	1922
United Kingdom.	6,293,783	14,113,878	6,425,528	3,034,791	1,891,690	782,568	8,176,302	32,850,510	24,263,454
Spain .....							\$851,372	\$823,000	\$289,835
Sweden .....							272,158		7,835
Turkey in Europe .....									
<b>North America</b>									
Canada .....	\$26,098	\$40,384	\$312	\$151,296		\$334,759	367,420	9,245	1,479
Costa Rica .....					\$1,339		564	429	2,240
Guatemala .....					11,428				64,173
Mexico .....	8,287	17,941	33,984	3,600		19,243	11,900	71,299	242,654
Panama .....	267,804	119,911	626,440	30,169	691,500	183,924	315,782	2,363,600	11,015
Honduras .....								2,055	3,548
Nicaragua .....	1,037						12,067	1,910	20,973
Salvador .....							8,668	14,228	338,815
Santo Domingo .....								57,504	
<b>South America</b>									
Argentina .....	37,820					14,751	25,000		17,092
Bolivia .....					36,968		34,922	33,940	10,457
Brazil .....								279,964	15,387
Chile .....	403,825	244,113	890,007	114,190	391,426	62,219	305,195	191,231	141,601
Colombia .....								2,281	23,629
Cuba .....							92,555	13,607	
Ecuador .....	940							83,088	182,275
Peru .....	167,237	539,390	195,749	19,396	228,541	199,927	165,634	1,593,042	1,447,756
<b>Oceania</b>									
Australia .....	853,936	1,475,647	1,438,362	464,524	352,553	237,025	666,441	681,704	730,045
French Oceania .....	29,259					17,298		82,468	
New Zealand .....	43,021	37,337		6,723			9,798	73,648	74,575
Philippine Islands .....	253,911	129,528				732,103	727,174	1,443,835	770,201
Miscellaneous .....									22,386
<b>Totals .....</b>	<b>\$13,806,500</b>	<b>\$20,406,266</b>	<b>\$10,654,491</b>	<b>\$4,190,695</b>	<b>\$10,205,445</b>	<b>\$30,518,519</b>	<b>\$42,812,891</b>	<b>\$69,129,971</b>	<b>\$66,101,370</b>

TABLE 15

NUMBER AND NET TONNAGE OF VESSELS ENTERING AND CLEARING AT PORTLAND, OREGON  
(U. S. Custom House Records, Portland, Oregon)

	—In Foreign Trade—			—*In Intercoastal Trade—			—In Pacific Coast Trade—			
	No.	Tons	Cleared	No.	Tons	Cleared	No.	Tons	Cleared	
1908.....	166	405,218	179	420,028	...	...	557	536,614	537	535,320
1909.....	89	236,339	97	243,915	...	...	704	661,705	686	654,908
1910.....	100	275,390	103	279,553	...	...	823	878,304	774	839,399
1911.....	112	301,226	114	301,675	...	...	834	916,908	803	890,615
1912.....	139	370,466	132	347,800	...	...	856	973,108	839	977,321
1913.....	163	445,703	170	452,296	...	...	989	1,177,495	947	1,044,422
1914.....	143	385,135	163	406,001	...	...	944	1,123,281	912	1,092,978
1915.....	101	228,610	138	293,462	...	...	826	1,032,536	776	973,125
1916.....	41	85,356	48	91,654	...	...	630	691,832	639	693,802
1917.....	21	32,782	61	107,114	...	...	539	720,214	515	661,216
1918.....	14	11,309	93	173,330	...	...	...	...	...	...
1919.....	14	15,916	140	346,641	...	...	...	...	...	...
1920.....	82	282,010	193	589,188	...	...	...	...	...	...
1921.....	331	1,207,456	343	1,246,647	19	65,970	24	95,142	594	1,107,430
1922.....	317	1,148,743	355	1,284,965	138	572,298	126	535,080	392	685,508
					272	1,070,783	237	842,854	566	923,608

\* Entries prior to 1918 included in Pacific Coast Trade.