
TRANSPORTATION ON THE PACIFIC COAST.

(EXCLUSIVE OF ALASKA.)

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BY THOMAS J. VIVIAN.

The statistics of transportation which are presented in the accompanying report are for the seaports and inland waterways of the states of Washington, Oregon, and California. From the official description of the Pacific coast furnished by the United States Coast and Geodetic Survey, it may be briefly stated that from the southern boundary of California, in latitude $32^{\circ} 32'$, longitude $117^{\circ} 08'$, to Point Arguello, in latitude $34^{\circ} 34'$, longitude $120^{\circ} 38'$, the coast runs west-northwest 225 miles, off which stretch lie the Santa Barbara islands; that from Point Arguello to Cape Mendocino, in latitude $40^{\circ} 25'$, longitude $124^{\circ} 22'$, it runs northwest 525 miles, embracing the Bay of Monterey and the gulf of the Farallones with the entrance to San Francisco bay; and that from Cape Mendocino to Cape Flattery, in latitude $48^{\circ} 23'$, longitude $124^{\circ} 44'$, it runs north-northwest 480 miles, embracing Humboldt bay, the great reefs of Point St. George and Cape Orford, the entrance to the Columbia river, and the Strait of Juan de Fuca.

COMMERCIAL FACILITIES.

According to the same authority the Pacific coast shore lines are as follows:

	STATUTE MILES.
Length of coast of California, including the Santa Barbara islands, and not including the bays and rivers.....	1,280
Oregon	382
Washington, including the islands of Washington sound, Admiralty inlet, and Puget sound	2,028
Total shore line.....	3,690

The advantages thus given and the facilities afforded for the prosecution of maritime commerce by such a vast coast line with the numerous harbors, inlets, and rivers that penetrate far into the interior, have not yet been fully appreciated or comprehended, although with each succeeding year the true magnitude of their possibilities is becoming understood.

COAST OF CALIFORNIA.

The coast of California lies between $32^{\circ} 32'$ and 42° north latitude. Measured from point to point its length is 850 statute miles. Its trend is from southeast to northwest, the most southerly point being also the most easterly. The most westerly point is not, however, the highest in latitude, Cape Mendocino, 100 miles south of the northern boundary, being farthest to the west. Up to this point from the Mexican boundary the trend of the coast is irregularly to the westward.

The gulf of the Farallones (in the bight of which is the entrance to San Francisco harbor), the Bay of Monterey, and a marked deviation to the east at Point Conception, are the prominent exceptions to the general northwesterly trend of the coast, and are the only instances of breaks of the continuity in large forms. The eastward recession of the coast at Point Conception partially protects the shore to the southward from northwesterly winds, and thereby serves to impart a noticeable softening to the coast climate of southern California. This protection makes landings on the open coast practicable to a much greater extent to the south of Point Conception than is possible to the north of it.

The shore line of California is generally bold and bluff to the sea, and is often mountainous and forbidding as viewed from the ocean. There are, however, a number of low plains or sand beaches interspersed between rocky points, but almost throughout its length it is bounded on the east side by ranges of mountains, which either come directly to the ocean or in other places recede a few miles from the shore line, being conspicuously visible in clear weather many miles at sea. The topography of the coast belt in general makes communication by land difficult, and in long stretches of coast the only outlet for productions or facility for trade is afforded by the sea.

The streams which discharge into the ocean are for the most part short and steep in descent. At their mouths shallow bars are found. The tide gives them whatever value they possess for purposes of navigation. This value

is not great; the depth of the few whose mouths admit vessels does not exceed 8 to 12 feet at high tide in channels that are frequently changed in position by gales of wind. The Salinas, Eel, and Klamath rivers are the largest examples.

A noticeable characteristic of the coast is the occurrence of esteros or lagoons, in which the tide rises and falls. In some instances they give admittance at high water to vessels drawing 8 to 10 feet. Wilmington harbor has been improved by the federal government so that vessels drawing 16 feet now enter. No improvement has been attempted at any of the other esteros, such as Newport, Morro, Drakes, and Bodega, but they are not of great value to commerce.

As for harbors, there are but two suitable for the largest vessels, San Francisco, admirable in every respect, and San Diego, smaller, but good. They are 500 miles apart. North of San Francisco there is no deep water harbor. Humboldt harbor to the north and Wilmington to the south are the only remaining instances of harbors which admit vessels with drafts of more than 8 to 10 feet. The limit of draft of vessels for these harbors is about 16 feet.

SAN FRANCISCO BAY AND ITS RIVERS.

What is popularly known as San Francisco bay is really a series of bays, as the different parts bear different names. San Francisco bay is 40 miles in length, extending 30 miles south of the city and 10 miles north of it. Adjoining it on the north, with an eastward trend, is San Pablo bay, about 12 miles in length, connected with Suisun bay lying to the eastward by the Strait of Karquinez, which is about 6 miles in length, the total mid-tide area of all these bays being 450 square miles.

The channels of the bay, while not free from rocks, are free from danger, and, indeed, San Francisco harbor, by reason of its unusual depth of entrance, freedom from hidden dangers, conspicuous landmarks, and its internal commodiousness and capacity, is well endowed.

The two rivers which drain the central valley of California, the Sacramento and San Joaquin, discharge together at the eastern end of Suisun bay, and, together with the bays already mentioned, afford continuous navigation to the considerable towns of Sacramento and Stockton, and to a large district of agricultural country lying above these points. The navigable portion of the Sacramento river is about 230 miles in length. The lower stretch, extending from Sacramento to the mouth, 60 miles in length, is affected by the tide for the greater part of its length, and is navigable for the largest class of river boats. The next division carries 4 feet of water in the lowest stage of the river to Colusa, 106 miles distant from Sacramento. Above Colusa the fall of the river increases rapidly. It is navigable for boats and barges drawing about 3 feet to Mackintosh landing, 68 miles farther up the Feather, which enters the Sacramento 20 miles above the city of the same name, and is navigable to the town of Marysville, 30 miles from its mouth. The San Joaquin river is navigable for large steamboats from its mouth to Stockton slough, a distance of 38 miles. During the winter and spring, navigation is practicable for light drafts to Hills Ferry, 90 miles farther up stream.

The Mokelumne river, Old river, and other tidal channels subsidiary to the San Joaquin afford steam navigation to more or less extent.

A number of tidal channels, locally known as creeks, make up from the bays, sometimes for a considerable distance, and afford navigation for light-draft boats and cheap communication with San Francisco. The largest of these are Napa, Petaluma, and Suisun creeks, the respective heads of navigation being thriving towns bearing the same names, while the whole 32 tidal channels contribute no less than 194 miles to the navigable waters of the bay.

ROADSTEADS AND LANDINGS.

The lack of convenient harbors and the difficult topography of the coast would seem to be insuperable obstacles, forbidding commerce, and consigning the coast lands to isolation. Yet a large aggregate of commerce is carried on by small vessels, which find shelter and opportunity in roadsteads, large and small, convenient or otherwise, which are distributed over almost the whole length of the coast.

The coast line, although little broken in large forms or provided with inlets admitting vessels, is irregular in a small way, being frequently varied by jutting rocky points, which afford a lee to the southward and shelter from the prevailing winds from the northwest which blow parallel to the coast line. The bights thus formed are entirely uncovered on one side, namely, to the south. Monterey roadstead is the only exception, it being open to the north and covered from the south. All others are sheltered on the north side and open in the south. In southerly weather vessels lying in these roadsteads are in danger of being driven ashore by wind or by the inset of a heavy sea.

The period of northerly or northwesterly winds covers most of the year. During winter months southerly winds occur at intervals, but not continuously. They are less frequent and less violent south of Point Conception than on the northern half of the coast, where they are liable to occur in severe storms, accompanied by heavy seas from the southwest. They are not, however, of long duration.

The coast is a lee shore in southwesterly gales, and sailing vessels finding themselves near the coast under these conditions are fortunate if they escape destruction. The prevailing northwesterly winds, however, do not expose vessels to the dangers of a lee shore, as they occur but as moderate gales. There is almost always a heavy surf, even in calm weather, which makes it dangerous to land in boats at unsheltered points.

The principal roadsteads in order of latitude south to north are San Pedro, San Luis Obispo, or Port Harford, Monterey, and Santa Cruz, situated south of San Francisco, and Drakes bay, Trinidad, and Crescent city, to the north of San Francisco.

In addition there are a great number of small roadsteads, including bays with shallow bars, river entrances, places with shelter for a very few vessels, and landings upon the open coast, where small vessels, steam or sail, receive or discharge cargo. No square rigged vessels or large steamers visit these points.

Most of these landings are contracted. They are usually provided with substantial moorings. Where trade warrants and where the position is not too exposed a wharf is built. In other cases, where the shore is high, cargo is put aboard by a chute or by means of a wire cable made fast to the mast of a vessel lying at anchor.

The distribution of these landings on different parts of the coast is quite unequal. Between the parallels 38° and 40° they are thickly grouped, there being nearly 40 in this interval. This is a region of some agricultural production, but the main trade is in the various forms of redwood lumber, railroad ties, and posts.

The mountainous character of Cape Mendocino and the absence of productions serve to reduce the number of landings between parallels 40° and 42° to six, in which, however, are included several points of importance.

Between San Pedro and San Diego there are but few landings, and they are sparsely distributed between Point Conception and Monterey.

Dense fogs prevail along the coast during the late summer and early autumn. They are a source of real danger, which is being reduced as the number of steam fog signals on shore is increased. These, with automatic whistling buoys, are now placed off the entrances of the most important ports.

COAST OF OREGON.

The coast line of Oregon is very similar to that of California, the cliffs for long stretches being almost vertical and covered with a dense growth of timber and underbrush, varied with sand dunes, a few bights, and an occasional estuary and lagoon. The harbors formed by the mouths of rivers are more numerous than any other class of landings for commercial purposes, the principal being the mouth of the Rogue river, which is quite extensive; the mouth of the Coquille, between which and San Francisco there plies a large fleet of lumber schooners; the mouth of the Umpqua, forming one of the best ports of the northwestern coast; the mouth of the Siuslaw, often called Siuslaw bay; Siletz river bay, and Nehalem bay, which is really the tidal mouth of the river of the same name.

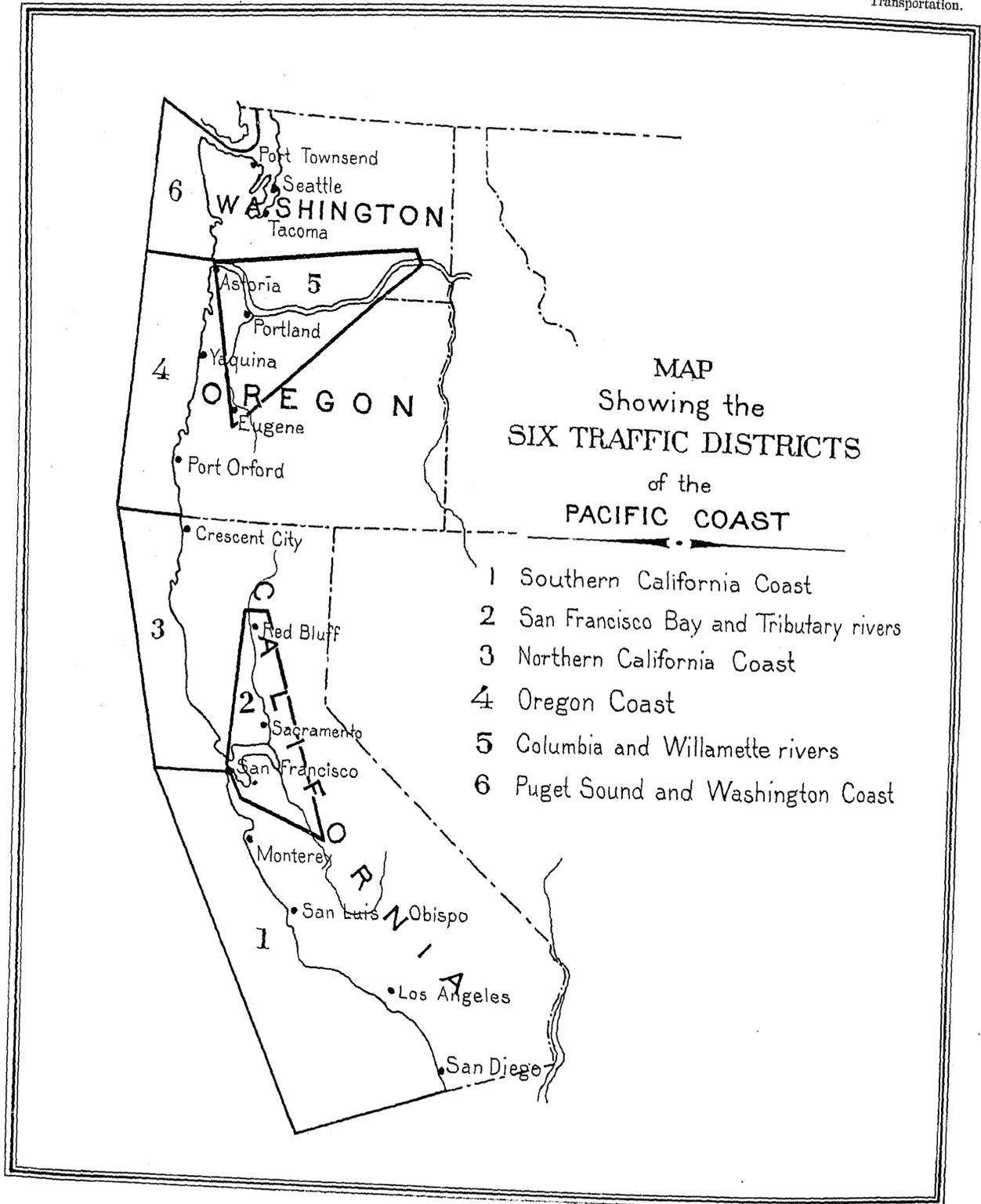
Coos bay is quite an extensive lagoon, sheltered by Cape Arago, and contains the two important towns of Empire city and Marshfield, from which places steamship lines ply regularly to San Francisco and Portland. Yakima bay and Tillamook harbor are good roadsteads, ocean steamers of from 12 to 14 feet draft running regularly between these places and San Francisco, 450 miles to the south. Alsea bay and Chetco bay afford good landings, while Astoria is situated on an extensive estuary, into which Youngs and Klaskuine rivers empty their waters. Just above the entrance to the Rogue river, 350 miles north of San Francisco and lying under the shelter of Cape Blanco, the most westerly point of the Pacific coast states, is Port Orford, selected by United States engineers as the harbor of refuge for Oregon.

The most remarkable waterways of Oregon are the Columbia and Willamette rivers. The Columbia belongs both to Washington and Oregon. The Willamette flows northward about midway between the coast range and the Cascade mountains and empties into the Columbia river at a point about 100 miles from the ocean, receiving in its course the five important westward flowing streams: the Clockalas, Moalla, Pudding, Santiam, and McKenzie, while flowing east into it are the Tutatulin, Chehalem, Yam Hill, La Crole, Luckiamute, Marys, Long Tom, and Callapasia, all of these being streams of importance and many of them navigable. The Willamette is navigable for steamers and river craft 125 miles from its mouth.

The city of Portland is situated on the Willamette, about 12 miles from its confluence with the Columbia and 110 miles by river from the ocean. It is at the head of ocean navigation for nearly the whole area drained by the Columbia river, and is remarkable as being the first place north of San Francisco, from which it is distant 709 miles, which will admit seagoing vessels of all classes. Its trade not only includes the comparatively local traffic of northern California, western Montana, and British Columbia, but also a large and increasing foreign commerce in wheat to England and the continent, in flour to Japan, and in lumber to England, China, and South America.

THE COLUMBIA RIVER.

This great river of the northwest forms the boundary line between the states of Oregon and Washington for 320 miles. Its principal tributary, the Snake river, flows through the latter state as a navigable river for 168



LOCALITIES OF REGISTRATION, EQUIPMENT, AND TRAFFIC.

In order to facilitate the presentation of statistics two systems of assignment have been devised and followed. The first system is that of segregating the various reports according to the customs districts, of which there are nine in the states of California, Oregon, and Washington. These, with their distinctive names, ports of entry, and ports of delivery, together with their boundary lines, are as follows:

NAMES, PORTS, AND BOUNDARY LINES OF THE CUSTOMS DISTRICTS OF CALIFORNIA, OREGON, AND WASHINGTON.

CALIFORNIA.

NUMBERS.	Name of district.	Port of entry.	Port of delivery.	Boundary line.
1.	San Diego.....	San Diego.....		From Mexico to Point San Mateo.
2.	Wilmington.....	Wilmington.....	Santa Barbara, San Buenaventura, and Hueneme.	From Point San Mateo to Point Sal, California.
3.	San Francisco.....	San Francisco.....	Vallejo and San Luis Obispo.....	From Point Sal to south line of Humboldt county, California.
4.	Humboldt.....	Eureka.....	Crescent City.....	From south line of Humboldt county, California, to Oregon.

OREGON.

5.	Southern Oregon.....	Coos bay.....	Ellensburg, Port Orford, and Gardiner.	From south line of Oregon to the south line of Lane county, Oregon.
6.	Yaquina.....	Yaquina.....	Newport.....	From south line of Lane county, Oregon, to Cape Lookout, Oregon.
7.	Oregon.....	Astoria.....		From Cape Lookout to Tillamook head, Oregon.
8.	Willamette.....	Portland.....		From Portland, Oregon, to mouth of Willamette river.

WASHINGTON.

9.	Puget Sound.....	Port Townsend.....		From Tillamook head to north boundary of Washington.
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To these districts all the statistics of number, valuation, tonnage, construction, rig, occupation, earnings, expenses, and operations have been assigned. The statistics assigned to the customs districts stand as the reports of the vessels registered in the ports embraced in those districts, but do not stand as the reports of the trade of ports, nor do they indicate well defined movements of commerce. The plan was therefore adopted of selecting "traffic districts" between or within which a more or less distinctive trade is carried on; these districts being entitled as follows:

TRAFFIC DISTRICTS.

- | | | |
|---|-------------------------------------|--------------------------------|
| 1 Southern California coast. | 4 Oregon coast. | 7 Foreign ports. |
| 2 San Francisco bay and tributary rivers. | 5 Columbia and Willamette rivers. | 8 Atlantic ports. |
| 3 Northern California coast. | 6 Puget sound and Washington coast. | 9 Alaska coast and Bering sea. |

Of these districts, it will be observed, six are located on the coast of the states of California, Oregon, and Washington, their limitations being set down on the accompanying map, while the ports and trading points of all the districts at which Pacific coast vessels made a report of having called are given in the following lists:

District No. 1, entitled "Southern California coast", includes the following ports and landings:

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|---------------------------------------|--|--|
| Amesport, San Mateo county. | Moss landing, Monterey county. | Point Sur, Monterey county. |
| Anaheim, Orange county. | Newport, Orange county. | Port Harford, San Luis Obispo county. |
| Andersons landing, San Diego county. | Pacific Grove, Monterey county. | Redondo, Los Angeles county. |
| Aptos, Santa Cruz county. | Pajaro, Monterey county. | Salinas landing, Monterey county. |
| Avalon, Los Angeles county. | Palos Verdes, Los Angeles county. | San Buenaventura, Ventura county. |
| Ballona harbor, Los Angeles county. | Pescadero, San Mateo county. | San Clemente island, San Diego county. |
| Cape San Martin, Monterey county. | Piedras Blancas, San Luis Obispo county. | San Diego, San Diego county. |
| Carpenteria, Santa Barbara county. | Pigeon point, San Mateo county. | San Nicolas island, San Diego county. |
| Catalina island, San Diego county. | Pillar point, San Mateo county. | San Pedro, Los Angeles county. |
| Cayucos, San Luis Obispo county. | Point Arguello, Santa Barbara county. | San Simeon, San Luis Obispo county. |
| Coronado, San Diego county. | Point Buchon, San Luis Obispo county. | Santa Barbara islands, Santa Barbara county. |
| Davenport landing, Santa Cruz county. | Point Conception, Santa Barbara county. | Santa Barbara, Santa Barbara county. |
| Farallones, San Francisco county. | Point Cypress, Monterey county. | Santa Cruz island, Santa Barbara county. |
| Gaviota, Santa Barbara county. | Point Gordo, Monterey county. | Santa Cruz, Santa Cruz county. |
| Goleta, Santa Barbara county. | Point Lobos, San Francisco county. | Santa Monica, Los Angeles county. |
| Gordons, Monterey county. | Point Loma, San Diego county. | Santa Rosa island, Santa Barbara county. |
| Half Moon bay, San Mateo county. | Point Monterey, San Mateo county. | Soquel, Santa Cruz county. |
| Hueneme, Ventura county. | Point Nuevo Ano, San Mateo county. | Watsonville landing, Monterey county. |
| Lompoc landing, Santa Barbara county. | Point Pinos, Monterey county. | Williams landing, Santa Cruz county. |
| Los Berros, San Luis Obispo county. | Point Purissima, Santa Barbara county. | Wilmington, Los Angeles county. |
| Monterey, Monterey county. | Point Sal, Santa Barbara county. | |
| Morro, San Luis Obispo county. | Point San Pedro, Los Angeles county. | |

District No. 2, entitled "San Francisco bay and tributary rivers", includes the following ports and landings:

Alameda, San Francisco bay.
 Alvarado, San Francisco bay.
 Alviso, San Francisco bay.
 Andersons landing, San Francisco bay.
 Angel island, San Francisco bay.
 Antioch, San Joaquin river.
 Barrons landing, Suisun bay.
 Benicia, San Francisco bay.
 Bensons landing, San Francisco bay.
 Berkeley, San Francisco bay.
 Birds landing, Sacramento river.
 Black Diamond, Sacramento river.
 Black point, San Francisco bay.
 Blind bay, San Francisco bay.
 Bob Mains landing, San Francisco bay.
 Bolton island, San Joaquin river.
 Boulder island, San Joaquin river.
 Bracks landing, Sacramento river.
 Buhlers landing, Suisun bay.
 Burdsells landing, Sacramento river.
 Butte city, Sacramento river.
 California city, San Francisco bay.
 Cant creek, San Francisco bay.
 Clarksburg, Sacramento river.
 Collinsville, Sacramento river.
 Colusa, Sacramento river.
 Courtland, Sacramento river.
 Crows landing, Sacramento river.
 Decota, Sacramento river.
 Dumbarton, Sacramento river.
 Duttons, San Francisco bay.
 Fairfield, Sacramento river.
 Fair Oaks, Sacramento river.
 Firebaugh, San Joaquin river.
 Franklin, Sacramento river.
 Freeport, Sacramento river.
 Galinas creek, San Francisco bay.
 Goat island, San Francisco bay.
 Grafton, Sacramento river.
 Grand island, Sacramento river.
 Gravel beds, San Francisco bay.
 Grayson, Sacramento river.
 Haystack landing, Sacramento river.
 Hunters point, San Francisco bay.
 Iron Horse slough, Sacramento river.

Isleton, Sacramento river.
 Jarvis landing, San Francisco bay.
 Jersey landing, Sacramento river.
 Jewels landing, San Francisco bay.
 Knights landing, Sacramento river.
 Lakeville, Sacramento river.
 Linden, Sacramento river.
 Long bridge, San Francisco bay.
 Lux ranch, San Francisco bay.
 McIntosh landing, Sacramento river.
 Maine prairies, Sacramento river.
 Mare island, San Francisco bay.
 Martinez, San Francisco bay.
 Marysville, Sacramento river.
 Maurys landing, San Francisco bay.
 Mayhews landing, San Francisco bay.
 Meiggs wharf, San Francisco bay.
 Melrose, San Francisco bay.
 Milpitas, San Francisco bay.
 Mokelumne river, San Joaquin river.
 Mott landing, San Francisco bay.
 Mountain View, San Francisco bay.
 Mount Eden, San Francisco bay.
 Mulfords landing, Napa creek.
 Napa, Napa creek.
 New Hope, Sacramento river.
 New town, Sacramento river.
 Novato, San Francisco bay.
 Oakland, San Francisco bay.
 Oregon dock, San Francisco bay.
 Oyster beds, San Francisco bay.
 Pacheco, San Francisco bay.
 Pattersons landing, Sacramento river.
 Petaluma creek, San Francisco bay.
 Petaluma, Petaluma creek.
 Peter point, San Francisco bay.
 Pinole, San Francisco bay.
 Pipers slough, San Francisco bay.
 Pittsburg landing, San Joaquin river.
 Port Costa, San Francisco bay.
 Potato slough, San Joaquin river.
 Powning, San Francisco bay.
 Presidio, San Francisco bay.
 Ravenswood, San Joaquin river.
 Redwood city, San Francisco bay.

Richland, Sacramento river.
 Rio Vista, Sacramento river.
 Roberts island, San Joaquin river.
 Rolling mills, San Francisco bay.
 Rose landing, San Joaquin river.
 Rose slough, San Joaquin river.
 Sacramento, Sacramento river.
 Salt slough, San Joaquin river.
 Salt works, San Francisco bay.
 San Bruno, San Francisco bay.
 San Francisco, San Francisco bay.
 San Francisquito, San Joaquin river.
 San Joaquin, San Joaquin river.
 San Mateo, San Francisco bay.
 San Pablo, San Francisco bay.
 San Quentin, San Francisco bay.
 San Rafael, San Francisco bay.
 Sausalito, San Francisco bay.
 Seal bluff, San Francisco bay.
 Selbys, San Francisco bay.
 Sierra point, San Francisco bay.
 Snodgrass slough, San Joaquin river.
 Sobrante, San Francisco bay.
 Sonoma landing, San Francisco bay.
 Stockton, San Joaquin river.
 Stones landing, San Francisco bay.
 Stratton island, San Joaquin river.
 Suisun, Suisun bay.
 Sutterville, San Joaquin river.
 Tabors landing, San Francisco bay.
 Thomas landing, San Francisco bay.
 Tiburon, San Francisco bay.
 Tolands landing, Sacramento river.
 Turks landing, Sacramento river.
 Union city creek, San Joaquin river.
 Union house, Sacramento river.
 Union iron works, San Francisco bay.
 Union island, San Francisco bay.
 Vallejo, San Francisco bay.
 Walnut Grove, Sacramento river.
 Warm springs, San Francisco bay.
 West Berkeley, San Francisco bay.
 Whites landing, San Joaquin river.
 Woodbridge, San Joaquin river.
 Yuba city, Sacramento river.

District No. 3, entitled "Northern California coast", includes the following ports and landings:

Albion, Mendocino county.
 Arcata, Humboldt county.
 Bodega, Sonoma county.
 Bolinas, Marin county.
 Bowers landing, Mendocino county.
 Biblers point, Sonoma county.
 Bridgeport, Humboldt county.
 Buckport, Humboldt county.
 Casper, Mendocino county.
 Cleone, Mendocino county.
 Collins landing, Mendocino county.
 Crescent, Del Norte county.
 Cuffey Cove, Mendocino county.
 Duxbury point, Sonoma county.
 Eel river, Humboldt county.
 Eureka, Humboldt county.
 Fields landing, Humboldt county.
 Fish rock, Mendocino county.
 Fisks mill, Sonoma county.

Fort Bragg, Mendocino county.
 Fort Ross, Sonoma county.
 Greenwood creek, Mendocino county.
 Gualala, Mendocino county.
 Hookton, Humboldt county.
 Humboldt, Humboldt county.
 Inglenook, Mendocino county.
 Klamath river, Humboldt county.
 Little river, Mendocino county.
 Mad river, Humboldt county.
 Mendocino city, Mendocino county.
 Myrtle creek, Humboldt county.
 Navarro, Mendocino county.
 North Port, Mendocino county.
 Noyo, Mendocino county.
 Point Arena, Mendocino county.
 Point Gorda, Humboldt county.
 Point Reyes, Marin county.
 Point Tomales, Marin county.

Port Kenyon, Humboldt county.
 Rockport, Mendocino county.
 Rough and Ready, Mendocino county.
 Russian landing, Sonoma county.
 Salt point, Sonoma county.
 Shelter Cove, Mendocino county.
 Signal point, Mendocino county.
 Smiths river, Del Norte county.
 South bay, Humboldt county.
 Stewarts point, Sonoma county.
 Stillwater Cove, Sonoma county.
 Table bluff, Humboldt county.
 Timber Cove, Sonoma county.
 Tomales, Marin county.
 Trinidad, Humboldt county.
 Ussal creek, Mendocino county.
 Westport, Mendocino county.
 Whitesboro, Mendocino county.

District No. 4, entitled "Oregon coast," includes the following ports and landings:

Alsea bay, Benton county.	Empire city, Coos county.	Port Orford, Curry county.
Bandon, Coos county.	Florence, Lane county.	Randolph, Coos county.
Bay city, Tillamook county.	Gardiner, Douglas county.	Rock creek, Tillamook county.
Cape Blanco, Curry county.	Garibaldi, Tillamook county.	Rogue river, Curry county.
Cape Foulweather, Tillamook county.	Hobsonville, Tillamook county.	Scottsburg, Douglas county.
Cape Gregory, Coos county.	Marshfield, Coos county.	Seaton, Lane county.
Cape Lookout, Tillamook county.	Mishawaka, Clatsop county.	Shoalwater bay, Coos county.
Cape Mears, Tillamook county.	Myrtle, Coos county.	Siletz bay, Tillamook county.
Cape Orford, Curry county.	Nehalem bay, Clatsop county.	Siuslaw, Lane county.
Cape Perpetua, Benton county.	Nestocton, Tillamook county.	Smiths river, Douglas county.
Chetco, Curry county.	Netarts, Tillamook county.	Sulphur springs, Douglas county.
Collins, Benton county.	Newport, Benton county.	Tillamook, Tillamook county.
Coos bay, Coos county.	Norfolk, Douglas county.	Toledo, Benton county.
Coos city, Coos county.	Oretown, Tillamook county.	Umpqua river, Douglas county.
Coquille river, Coos county.	Oyster bay, Benton county.	Utter city, Coos county.
Elk city, Benton county.	Oysterville, Benton county.	Yakima, Benton county.
Ellensburg, Curry county.	Parkersburg, Coos county.	Yaquina, Benton county.

District No. 5, entitled "The Columbia and Willamette rivers", includes the following ports and landings:

Albany, Willamette river.	Fern Hill, Columbia river.	Oswego, Willamette river.
Albina, Willamette river.	Fort Canby, Columbia river.	Pekin, Columbia river.
Arlington, Columbia river.	Fort Stevens, Columbia river.	Peoria, Willamette river.
Astoria, Columbia river.	Freeport, Columbia river.	Pillar rock, Columbia river.
Beaver, Columbia river.	Gnat creek, Columbia river.	Point Adams, Columbia river.
Blalock, Columbia river.	Grays river, Columbia river.	Portland, Willamette river.
Blind slough, Columbia river.	Harringtons point, Columbia river.	Quinn, Columbia river.
Booneville, Willamette river.	Harrisburg, Willamette river.	Ranier, Columbia river.
Butteville, Willamette river.	Hess slough, Columbia river.	Rays landing, Willamette river.
Canby, Willamette river.	Hoods river, Columbia river.	Rowena, Columbia river.
Cape Disappointment, Columbia river.	Hunters point, Columbia river.	St. Helen, Columbia river.
Cape Horn, Columbia river.	Iiwaco, Columbia river.	St. Johns, Columbia river.
Carroll, Columbia river.	Independence, Willamette river.	Salem, Willamette river.
Cascades, Columbia river.	John Days river, Columbia river.	Sand island, Willamette river.
Castle Rock, Columbia river.	Juniper, Columbia river.	Scappose, Columbia river.
Cathlamet, Columbia river.	Kalama, Columbia river.	Sellwood, Willamette river.
Chinook, Columbia river.	Kelso, Columbia river.	Skamokawa, Columbia river.
Clackamas, Willamette river.	Klakamas, Willamette river.	Skipanon, Columbia River.
Clark river, Upper Columbia river.	Klickitat, Columbia river.	Springfield, Willamette river.
Clatskamie river, Columbia river.	Knappa, Columbia river.	Stokes, Columbia river.
Clatsop, Columbia river.	Knappton, Columbia river.	The Dalles, Columbia river.
Clifton, Columbia river.	La Center, Columbia river.	Toledo, Columbia river.
Collis, Columbia river.	Lake river, Columbia river.	Tongue point, Columbia river.
Columbia, Columbia river.	Lewis and Clarke river, Columbia river.	Tualatin, Willamette river.
Cool creek, Columbia River.	Lincoln, Willamette river.	Umatilla, Columbia river.
Corvallis, Willamette river.	Marshland, Columbia river.	Upper Columbia, Columbia river.
Coweewan, Columbia river.	Martins slough, Columbia river.	Vancouver, Columbia river.
Cowlitz, Columbia river.	Millers, Willamette river.	Venton, Columbia river.
Coyote, Columbia river.	Milton, Columbia river.	Wallawalla, Columbia river.
Deep creek, Upper Columbia river.	Milwauke, Willamette river.	Wallula, Columbia river.
Deer island, Columbia river.	Mohawk, Willamette river.	Washougal, Columbia river.
Dodsons, Columbia river.	Monticello, Columbia river.	Waterford, Columbia river.
Eagle cliff, Columbia river.	Mosier, Columbia river.	Westport, Columbia river.
East Portland, Willamette river.	Mount Coffin, Columbia river.	Weyeth, Columbia river.
Enterprise, Columbia river.	Oak Point, Columbia river.	Wheatland, Willamette river.
Eugene city, Willamette river.	Olney, Columbia river.	Youngs river, Columbia river.
Fairfield, Willamette river.	Oregon city, Willamette river.	

District No. 6, entitled "Puget sound and Washington coast", includes the following ports and landings:

Aberdeen, coast.	Gull harbor, Puget sound.	Port Madison, Puget sound.
Anacortes, Puget sound.	Hadlock, Puget sound.	Port Orchard, Puget sound.
Arcadia, Puget sound.	Hats slough, Puget sound.	Port Townsend, Puget sound.
Avondale, Puget sound.	Henderson bay, Puget sound.	Poulsbo, Puget sound.
Ballard, Puget sound.	Hoko, Puget sound.	Purdy, Puget sound.
Bay city, coast.	Hoquiam, coast.	Puyallup, Puget sound.
Bellingham bay, Puget sound.	Humptulips, Puget sound.	Pysht, Puget sound.
Birch bay, Puget sound.	Irondale, Puget sound.	Quartermaster's harbor, Puget sound.
Blaine, Puget sound.	Johns river, coast.	Quilcene, Puget sound.
Bruceport, coast.	Kamilche, Puget sound.	Quillayute, coast.
Cape Flattery, coast.	Kanaka bay, coast.	Quinault, coast.
Cape Johnson, coast.	Kirkland, Puget sound.	Renton, Puget sound.
Cascade bay, coast.	Laconner, Puget sound.	Riparia, Snake river.
Caseys inlet, Puget sound.	Lake bay, Puget sound.	Riverside, coast.
Cedarville, coast.	Lakeview, Puget sound.	Roche harbor, Puget sound.
Centerville, Puget sound.	Lopes island, Puget sound.	St. Helens, coast.
Chehalis bay, coast.	Lowell, Puget sound.	Salmon bay, Puget sound.
Chicago, Puget sound.	Lumi, Puget sound.	Samish, Puget sound.
Chico, Puget sound.	Lyman, Puget sound.	San Juan, Puget sound.
Chimacum, Puget sound.	Lynden, Puget sound.	Seabeck, Puget sound.
Cluckamut, Puget sound.	Markham, coast.	Seattle, Puget sound.
Coburg, Puget sound.	Marysville, Puget sound.	Seguin, Puget sound.
Cosmopolis, coast.	McKay, Puget sound.	Sehome, Puget sound.
Coupeville, Puget sound.	Melbourne, coast.	Semiahmoo, Puget sound.
Coveland, Puget sound.	Minter, Puget sound.	Shelton, Puget sound.
Crescent bay, Puget sound.	Montesano, coast.	Sidney, Puget sound.
Cypress, Puget sound.	Mount Vernon, Puget sound.	Skagit, Puget sound.
Damon, coast.	Mukilteo, Puget sound.	Skokomish, Puget sound.
Deception bay, Puget sound.	Nasel, coast.	Snohomish, Puget sound.
Des Moines, Puget sound.	Neah bay, Puget sound.	South Bend, coast.
Dewatto, Puget sound.	Nesqually, Puget sound.	Springbrook, Puget sound.
Doe bay, Puget sound.	New Dungeness, Puget sound.	Stanwood, Puget sound.
Dogfish bay, Puget sound.	New London, Puget sound.	Steilacoom, Puget sound.
Dunamish, Puget sound.	Nibbeville, Puget sound.	Stillaguamish, Puget sound.
Dwamish, Puget sound.	Nooksachk, Puget sound.	Sunshine, coast.
East sound, Puget sound.	North cove, coast.	Tacoma, Puget sound.
Ebeys landing, Puget sound.	Oak harbor, Puget sound.	Tolt, Puget sound.
Edison, Puget sound.	Oakland, Puget sound.	Tulalip, Puget sound.
Edmunds, Puget sound.	Olympia, Puget sound.	Tumwater, Puget sound.
Elma, coast.	Orcas island, Puget sound.	Union city, Puget sound.
Fairhaven, Puget sound.	Oysterville, coast.	Utsaladdy, Puget sound.
Falls city, Puget sound.	Petersons point, coast.	Vashon, Puget sound.
Fidalgo, Puget sound.	Port Angeles, Puget sound.	Vaughn, Puget sound.
Florence, Puget sound.	Port Blakeley, Puget sound.	Waldron, Puget sound.
Freeport, Puget sound.	Port Discovery, Puget sound.	Whatcom, Puget sound.
Friday harbor, Puget sound.	Port Gamble, Puget sound.	White river, Puget sound.
Gig harbor, Puget sound.	Port Hadlock, Puget sound.	Willapa, coast.
Grays harbor, coast.	Port Ludlow, Puget sound.	Willopah, coast.
Guemes, Puget sound.		

Traffic district No. 7, entitled "Foreign", includes the ports of call and trading points embraced in the following branches: Japanese and Chinese trade; East India trade; Mexican trade; Central and South American trade; South Sea trade; Canadian trade, and European trade:

JAPANESE AND CHINESE TRADE.

Amoy, China.	Nagasaki, Japan.	Suatow, China.
Foochow, China.	Nicholasofski, Siberia.	Vladivostock, Siberia.
Hakodate, Japan.	Petropaulofski, Siberia.	Yokohama, Japan.
Hongkong, China.	Shanghai, China.	

EAST INDIA TRADE.

Bangkok, Siam.	Manilla, Philippine islands.	Saigon, Cochin China.
Batavia, Java.	Padang, Sumatra.	Samarari, Philippine islands.
Bombay, Hindostan.	Pakalongon, Borneo.	Singapore, Malaya.
Calcutta, Hindostan.	Penange, Malaya.	Sourabaya, Java.
Madagascar island.		

MEXICAN TRADE.

Acapulco, Guerrero.
Cape San Lucas, Lower California.
Ceros island, Lower California.
Coronado islands, Lower California.
Eusenada, Lower California.
Guaymas, Sonora.

La Paz, Lower California.
Magdalena bay, Lower California.
Manzanillo, Colima.
Mazatlan, Sinaloa.
Port Angel, Lower California.
Raza island, Lower California.

San Benito, Sinaloa.
San Blas, Jalisco.
San Quentin, Lower California.
Santa Margerita island, Lower California.
Santa Rosalie island, Lower California.
Tonala, Chiapas.

CENTRAL AND SOUTH AMERICAN TRADE.

Acajutla, Salvador.
Amapalla, Honduras.
Arico, Chile.
Antafogasta, Chile.
Balenita, Equador.
Buena Ventura, United States of Colombia.
Caldera, Chile.
Callao, Peru.
Cape Corientes, Chile.
Carra bay, Peru.
Champerico, Guatemala.
Cobija, Chile.
Colba, Guatemala.

Cóquimbo, Chile.
Corinto, Nicaragua.
Guayaquil, Equador.
Huasco, Chile.
Iquique, Chile.
La Libertad, Salvador.
La Union, Salvador.
Manta, Equador.
Molendo, Peru.
Nicaragua, Guatemala.
Panama, United States of Colombia.
Pascamayo, Peru.

Payta, Peru.
Peten, Peru.
Pimental, Peru.
Pisagua, Chile.
Pisco, Peru.
Punta Arenas, Costa Rica.
Realjo, Guatemala.
Salavari, Peru.
San José, Guatemala.
San Juan Del Sur, Nicaragua.
Tumaco, United States of Colombia.
Valparaiso, Chile.

SOUTH SEA TRADE.

Apia, Samoan islands.
Caroline islands.
Fanning islands.
Flint islands.
Friendly islands.
Gilbert islands.
Hilo, Hawaiian islands.

Homapo, Hawaiian islands.
Honolulu, Hawaiian islands.
Howland islands.
Kahului, Hawaiian islands.
Mahukona, Hawaiian islands.
Marshall islands.
Melbourne, New South Wales.

Newcastle, New South Wales.
Papeete, Society islands.
Solomon islands.
Sprecklesville, Hawaiian islands.
Sydney, New South Wales.
Tahiti, Society islands.
Tutuila, Samoan islands.

CANADIAN TRADE.

Barkley sound, British Columbia.
Bellingham bay, British Columbia.
Chemainus, Vancouver island, British Columbia.
Comox, Vancouver island, British Columbia.
Departure bay, Vancouver Island, British Columbia.

Dunsmuir, Vancouver island, British Columbia.
Moodyville, British Columbia.
Nanimo, Vancouver island, British Columbia.
New Westminster, British Columbia.
Nootka sound, British Columbia.

Port Moody, British Columbia.
Texada island, Straits of Georgia, British Columbia.
Vancouver, British Columbia.
Victoria, Vancouver island, British Columbia.

EUROPEAN TRADE.

The large European ports, the principal trading having been with Liverpool, Plymouth, London, Hull, Bordeaux, and Hamburg.

District No. 8, entitled "Atlantic ports", includes all seaports on the United States Atlantic coast.

District No. 9, entitled "Alaska coast and Bering sea", includes the following ports and trading points:

Bartlett bay.	Douglas island.	Howkan.	Labaska.	Point Hoonah.	Suttessau.
Bristol bay.	Etches bay.	Juneau.	Labouchere bay.	Port Clarence.	Unalaska.
Burroughs bay.	Fin point.	Karluk.	Mitlakotla.	Prince Williams	Uyak.
Chignik.	Fish bay.	Killisnoo.	Morgovia.	sound.	Wrangell island.
Chilkat.	Fort Tongass.	Klawak	Nichols bay.	Pyramid harbor.	Yess bay.
Cook inlet.	Freshwater bay.	Kodiak.	Nushagak.	Sitka.	

PLAN OF THE TABLES.

For the presentation of the statistical results of the investigation by the Eleventh Census into the industry of transportation by water on the Pacific coast, 40 tables have been prepared, their respective numbers and titles being as follows:

Equipment, occupation, and construction:

- Table 1. Equipment of all craft.
- Table 2. Occupation and valuation by classes.
- Table 3. Ownership by classes.
- Table 4. Ownership by localities.
- Table 5. Construction by classes.
- Table 6. Construction by localities.

Traffic operations:

- Table 7. Traffic in general.
- Table 8. Freight traffic by commodities.
- Table 9. Interdistrict movement (freight).
- Table 10. Interdistrict movement (mileage).

Earnings and expenses:

- Table 11. Financial account in general.
- Table 12. Itemized expense account.
- Table 13. Employés and wages in detail.
- Table 14. Employés and wages by coast totals.
- Table 15. Fuel account.

General operations by classes:

- Table 16. Passenger and freight vessels.
- Table 17. Ferryboats.
- Table 18. Fishing vessels.
- Table 19. Harbor tugs.
- Table 20. Pilot boats.
- Table 21. Yachts and pleasure boats.
- Table 22. No traffic report.
- Table 23. Summary.

Comparative statistics:

- Table 24. Steamers and unrigged craft in 1880 and 1889.
- Table 25. Steamers by classes in 1880 and 1889.
- Table 26. Gross earnings of steamers in 1880 and 1889.
- Table 27. Steamers' crews and wages in 1880 and 1889.
- Table 28. Steamer traffic in 1880 and 1889.
- Table 29. Fleets for the 10 years, 1880-1889.
- Table 30. Aggregates and averages for the 10 years, 1880-1889 (all vessels).
- Table 31. Aggregates and averages for the 10 years, 1880-1889 (steamers).
- Table 32. Aggregates and averages for the 10 years, 1880-1889 (sailing vessels).
- Table 33. Aggregates and averages for the 10 years, 1880-1889 (unrigged craft).
- Table 34. Tonnage fluctuations for the 10 years, 1880-1889 (all craft).
- Table 35. Tonnage fluctuations for the 10 years, 1880-1889 (steamers).
- Table 36. Tonnage fluctuations for the 10 years, 1880-1889 (sailing vessels).
- Table 37. Tonnage fluctuations for the 10 years, 1880-1889 (unrigged craft).
- Table 38. Shipbuilding for the 10 years, 1880-1889 (general).
- Table 39. Shipbuilding for the 10 years, 1880-1889 (steamers).

Congressional appropriations:

- Table 40. Appropriations for the Pacific coast by localities.

EQUIPMENT AND OCCUPATION.

Table 1, "Equipment of all craft", shows the number, tonnage, and value of all steamers, sailing vessels, and unrigged craft of over five tons burden, registered or owned in the customs districts of the states of California, Oregon, and Washington, in the year ended December 31, 1889, no matter what their occupation, or whether they were in occupation or not.

Table 2, entitled "Occupation and valuation by classes", analyzes the entries of Table 1 by separating the Pacific coast fleet into classes of occupation or pursuit. The steamers are divided into five classes, namely, those engaged in the transportation of both passengers and freight, ferryboats, fishing vessels, harbor tugs, and yachts; the sailing vessels are divided into four classes: freighters, fishing vessels, pilot boats, and yachts. A separate entry is also made of those steamers and sailing vessels which made no report of traffic operations. Separate entry is also made of the barges, lighters, and scows, grouped as unrigged. For each of these classifications the number, gross tonnage, valuation, and value per gross ton are given of vessels so classified allotted to each customs district, with totals for the states and coast.

OWNERSHIP BY CLASSES.

Table 3 shows the number, tonnage, and value of all classes of vessels allotted, respectively, to individual, joint stock, and corporate ownership, the entries being grouped for each class of craft and credited separately to each customs district, with totals for the states and coast, as in the other tables of equipment.

Table 4, "Ownership by localities", treats of the same subject as Table 3, except that instead of grouping the data by classes of occupation it groups them by localities, gathering under the head of each district all the vessels of all classes forming its fleet.

CONSTRUCTION.

Table 5, "Construction by classes", shows the number, tonnage, and value of all classes of vessels, respectively, constructed of wood, composite, and iron or steel, the entries being grouped for each class of craft and credited separately to each district, with totals for the states and coast.

Table 6, "Construction by localities", bears the same relation to Table 5 that Table 4 does to Table 3; that is, instead of grouping the data of construction by classes of occupation, it groups them by localities, gathering under the head of each district all the vessels of all classes forming its fleet.

TRAFFIC.

The statistics of traffic are presented in four tables numbered from 7 to 10, inclusive. The first, Table 7, "Traffic in general", contains the number of vessels, their tonnage, trips made, number of miles covered, freight moved, and passengers carried by all freight and passenger carrying craft of the Pacific coast.

Table 8, "Freight traffic by commodities", divides the gross statement of freight carried into the principal items of classified report.

The preceding tables have all been assigned to the customs districts described in the paragraph entitled "Localities of registration, equipment, and traffic", but in the two following tables (9 and 10) the statistics of traffic operations are assigned to the traffic districts described in the same paragraph. Table 9, for instance, entitled "Interdistrict movement (freight)", shows how many tons of each commodity were moved in or between any of the six traffic districts into which the coast has been marked off, and between any of these districts and foreign ports, Atlantic ports, and the Alaska coast and the Bering sea, while Table 10 shows how many miles were covered by the vessels engaged in the transportation of this freight, the entries in each table being made in such way as to show how the traffic vessels of each port were occupied, where they went, how many tons they carried, and how many miles they traveled during the year of report.

EARNINGS AND EXPENSES.

Four tables, numbered 11 to 14, are devoted to this part of the subject. Table 11, "Financial account in general", is almost a balance sheet of the industry of water transportation on the Pacific coast, showing as it does the gross earnings, expenses, and remaining net earnings of the coast fleet reporting their income and expenditure, the entries being made for the ports of registration, with totals for states and coast.

In Table 12, entitled "Itemized expense account", the expenses of reporting vessels, following the same division of customs districts and states, are divided into the various items of port charges, wages, provisions, current repairs, fuel (for steamers), other running expenses, commissions, insurance, taxes, office expenses, and other shore expenses, these being the eleven divisions of the expenditures.

EMPLOYÉS AND WAGES.

A still further subdivision of expenses is made in Table 13, "Employés and wages in detail". Here the monthly wages paid in each district to all grades of employés on vessels engaged in the transportation of freight and passengers is given, together with the number of each class of employés making up the ordinary crews required as the complement of all the reporting craft engaged in traffic operations.

Table 14, "Employés and wages by coast totals", is really a résumé of Table 13, taking up as it does the total number of employés of each grade and the aggregate and average monthly wages paid to each of these grades on the coast for all operating vessels engaged in passenger and freight traffic on the Pacific coast, the only segregations being those of steamers and sailing vessels.

FUEL ACCOUNT.

Table 15, entitled "Fuel account", applies only to steamers, and gives the amount of coal and wood burned by the steamers operated in the customs districts, together with the cost of the same.

GENERAL OPERATIONS BY CLASSES.

In the eight tables numbered from 16 to 23, inclusive, embraced under the above head, a separate account is given of the general operations of the six classes of vessels into which they were divided in Table 2; that is, freight and passenger vessels, ferryboats, fishing vessels, harbor tugs, pilot boats, yachts, and pleasure boats, with an additional table for those craft not making any traffic report and one in résumé. The items reported on, wherever practicable, are number, tonnage, value, trips made, miles traveled, freight moved, passengers carried, gross earnings, expenses, net earnings, common seamen employed, average wages per month paid to common seamen, number making up ordinary crews, total number of men employed, and total wages paid during the year.

COMPARATIVE STATISTICS.

All the tables which have been previously considered present only what may be called the positive statistics for the year ended December 31, 1889, whereas the sixteen tables numbered inclusively 24 to 39 give the comparative statistics either for the two years 1880 and 1889 or for the ten years 1880-1889. In the first five tables the two years of report alone are taken into consideration, the items being gathered from the transportation volume issued for the census of 1880 and from the schedules of the present inquiry.

The eleven tables, 29 to 39, inclusive, have been largely made up from information furnished this office by the Commissioner of Navigation. In Table 29 there are given the figures showing the number and tonnage of all steamers, sailing vessels, and barges registered in the customs districts of the Pacific coast for the ten years 1880-1889. In Tables 30, 31, 32, and 33 the number, aggregate, and average tonnage of each steamer, sailing vessel, and barge fleet belonging to each district is given for the decade in question. Tables 34, 35, 36, and 37 give the fluctuations of the annual average number and annual average tonnage of all vessels registered in the different customs districts. Tables 38 and 39 are records of the shipbuilding for the period in question, the first giving the number and tonnage of all steamers, sailing vessels, and barges built during those years in the various customs districts, and the second furnishing the number and tonnage of all steamers built in the various districts, arranged according to their methods of propulsion; that is, whether propellers, or side-wheel or stern-wheel steamers.

CONGRESSIONAL APPROPRIATIONS.

The last of the tables (Table 40) gives the amount appropriated by Congress for the survey, improvement, and maintenance of the ports, harbors, and landings on the Pacific coast and of the rivers flowing into them, from the date of the earliest appropriation down to and including that of the act of Congress of September 19, 1890. These sums, so far as the grouping of periods is concerned, are given: first, up to and including 1879; second, from 1880 to 1889, inclusive; third, the appropriations in 1890; and fourth, the total appropriations from first to last. So far as localities are concerned, these sums are given with considerable detail, the items not only being furnished for each state but for each locality on which the government money has been spent or for which it has been appropriated.

WHAT THE TABLES SHOW.

Passing from a consideration of the plan of the tables to that of the data contained in them, and taking them up in their order, the first fact to be noticed is that on the Pacific coast, in the year ended December 31, 1889, the floating equipment numbered 1,842 craft, having a tonnage of 441,939, and an estimated commercial value as returned in the schedules of \$23,067,370. Of this fleet 531 were steamers with a tonnage of 170,503 and a value of \$15,526,455; 822 were sailing vessels with a tonnage of 208,080 and a value of \$6,715,570, and 489 unrigged craft with a tonnage of 63,356 and a value of \$825,345. Of these totals California had 251 steamers with a tonnage of 106,667 and a value of \$9,792,905; 697 sailing vessels with a tonnage of 162,946 and a value of \$5,753,975, and 229 unrigged craft with a tonnage of 35,273 and a value of \$601,200; Oregon had 165 steamers with a tonnage of 50,628 and a value of \$4,492,200; 43 sailing vessels with a tonnage of 2,776 and a value of \$97,065, and 158 unrigged craft with a tonnage of 15,559 and a value of \$144,100; and Washington had 115 steamers with a tonnage of 13,208 and a value of \$1,241,350; 82 sailing vessels with a tonnage of 42,358 and a value of \$864,530, and 102 unrigged craft with a tonnage of 12,524 and a value of \$80,045. As will be seen by examining Table 1, the particulars of the fleets are given for each of the 9 customs districts located in the states of California, Oregon, and Washington, the relative importance of each of these districts being clearly shown by their entries. That of San Francisco preponderates, its fleet numbering 1,018 out of a total of 1,842, its tonnage amounting to 289,750 out of a total of 441,939, and the value of its fleet reaching \$15,400,205 out of a total of \$23,067,370. It must be remembered that the figures for the district of Puget sound (299 craft with a tonnage of 68,090 and a value of \$2,185,925) really cover all the shipping belonging to the state of Washington, while in Oregon there are four districts, three of which, southern Oregon, Oregon, and Willamette, respectively, represent the ports of Coos bay, Astoria, and Portland, the fleet of southern Oregon standing at 109 craft, with a tonnage of 3,887 and a value of

\$99,290; that of Oregon being 105, with a tonnage of 5,353 and a value of \$347,990, and that of Willamette being 136, with a tonnage of 57,402 and a value of \$3,998,485. This large value of the Portland fleet is due to the fact that out of its whole fleet 96 are steamers with a value of \$3,850,100, while Astoria has only 41 steamers with a value of \$284,100, and Coos bay 15 steamers with a value of \$70,600.

In Table 2 the 1,842 craft which constituted the total fleet of the Pacific coast are divided into their classes of occupation or pursuit, entries being made to show the number, gross tonnage, gross valuation, and value per ton of passenger and freight boats, sail and steam, ferryboats, harbor tugs, pilot boats, pleasure craft, fishing vessels, unrigged craft, and those miscellaneous vessels which furnished no report of traffic operations. From the figures so presented the following summarized results are obtained:

TABLE B.—SUMMARY SHOWING THE NUMBER, GROSS TONNAGE, AND ESTIMATED COMMERCIAL VALUE OF THE PRINCIPAL CLASSES OF VESSELS OWNED ON THE PACIFIC COAST IN 1889.

CLASSES OF VESSELS.	Number of vessels.	Gross tonnage.	Valuation.
Total	1,842	441,939	\$23,067,370
Steamers	531	170,503	15,526,455
Passenger and freight	354	120,491	12,600,755
Ferry	38	24,630	979,300
Fish	24	4,343	411,500
Harbor tugs	70	6,109	1,120,800
Yachts	3	63	6,500
No traffic report	42	5,867	347,600
Sailing vessels	822	208,080	6,715,570
Freight	647	194,478	6,112,340
Fish	60	6,372	280,955
Pilot boats	9	418	40,700
Yachts	25	612	69,300
No traffic report	81	6,200	208,275
Unrigged craft	489	63,356	825,345

Material will also be found in Table 2 for a calculation showing the average tonnage, average commercial value, and average value per ton of the ten classes mentioned; and in the accompanying summary these averages will be found worked out for the six principal classes of vessels, the miscellaneous class here including yachts, fishing vessels, and those vessels for which no traffic was reported.

TABLE C.—SUMMARY SHOWING THE NUMBER, AVERAGE TONNAGE, AVERAGE VALUE PER VESSEL, AND AVERAGE VALUE PER GROSS TON OF THE PRINCIPAL CLASSES OF VESSELS OWNED ON THE PACIFIC COAST IN 1889.

CLASSES OF VESSELS.	Number of vessels.	Average tonnage.	Average commercial value.	Average value per gross ton.
Total	1,842	240	\$12,523	\$52.20
Steamers	531	321	20,240	91.06
Passenger and freight	354	366	35,765	97.77
Ferry	38	648	25,771	39.70
Harbor tugs	70	87	16,011	183.47
Miscellaneous	69	149	11,096	74.53
Sailing vessels	822	253	8,170	32.27
Freight	647	301	9,447	31.43
Pilot boats	9	46	5,522	118.90
Miscellaneous	166	79	3,335	41.98
Unrigged craft	489	130	1,688	13.03

VALUES.

It will be seen from this summary that the largest average tonnage was that of the ferryboats, 648, and that the sailing vessels and steamers engaged in freighting business ran very close in their average tonnage, the figures being respectively 301 and 366. The average value of these freighters, however, differed very materially, for, while the average value of the steam freighters was \$97.77 per gross ton, that of the sailing vessels was only \$31.43, the larger value of the steamers being due to the presence of machinery. It will be observed, too, in looking at Table 2, that the value per gross ton of passenger and freight steamers by no means keeps on an even basis in all localities, the lowest being in the Humboldt district, where the average value per gross ton was \$63.19, and the highest being at Wilmington, where it was \$197.75. The schedule calls for the "estimated commercial value", and the figures set down ran high or low according to the basis upon which the estimator placed his value. In some cases a man estimated his vessel at what it cost, in another case he estimated it only at what it would realize in sale; the insurance men had their estimate, while in many other cases the idea was rigidly held that the values would be used as a basis for taxation. The average value per gross ton of steam passenger and freight boats has been figured up to be \$97.77, and this, as in the case of the coast estimate for nearly all the classes, may be accepted as a reasonably close one.

With the exception of the ferryboats, the average value per ton of the principal classes of vessels on the Atlantic coast and Gulf of Mexico agrees very closely with that which has been arrived at on the Pacific coast. On the Atlantic coast the average value per gross ton of passenger and freight steamers is \$75.81, while on the Pacific coast it is \$97.77; that of harbor tugs on the Atlantic coast is \$166.29, while on the Pacific coast it is \$183.47. That of the sailing freighters on the Atlantic coast is \$30.77, while on the Pacific coast it is \$31.43, a difference of but 66 cents per ton. The parallelism of average is still closer in the case of the unrigged craft, that on the Atlantic coast being \$12.57 and on the Pacific coast \$13.03, a difference of but 46 cents per ton.

OWNERSHIP.

The statistics of ownership are only given for the 1,353 steamers and sailing vessels of the Pacific coast fleet, the data being grouped in Table 3 according to the various classes and in Table 4 according to the various localities. The ownership is treated under the three heads of individual, joint stock, and corporate, the number, aggregate tonnage, and valuation of each class of craft being given under each of these heads. It is seen from Table 3, for example, that of the 531 steamers of the Pacific coast 252 were owned by individuals, and that the tonnage and valuation of these individually owned steamers were 34,114 and \$3,147,650; that 25 of them, with a tonnage of 3,368 and a value of \$324,500, were owned by joint stock companies, and that the remaining 254, with a tonnage of 133,021 and a value of \$12,054,305, were owned by corporations. Of the 822 sailing vessels 742, with a tonnage of 166,591 and a value of \$5,853,465, were owned by individuals; 78, with a tonnage of 40,855 and a value of \$843,105, were owned by corporations, only 2, with a tonnage of 634 and a value of \$19,000, were owned by joint stock companies. Putting the steam and sail together, this will mean that out of the total fleet 994, with a tonnage of 200,705 and a value of \$9,001,115, were owned by individuals; that 27, with a tonnage of 4,002 and a value of \$343,500, were owned by joint stock companies, and that 332, with a tonnage of 173,876 and a value of \$12,897,410, were controlled by corporate ownership. The excess in the average tonnage of corporate owned vessels over those owned by individuals and joint stock companies is plainly set down in the subjoined summary:

TABLE D.—SUMMARY SHOWING THE AVERAGE TONNAGE OF STEAMERS AND SAILING VESSELS ON THE PACIFIC COAST OWNED BY INDIVIDUALS, JOINT STOCK COMPANIES, AND CORPORATIONS

CLASSES OF VESSELS.	AVERAGE TONNAGE PER VESSEL BY OWNERSHIP.		
	Individual.	Joint stock.	Corporation.
Total	202	148	524
Steamers	135	135	524
Sailing vessels.....	225	317	524

The relative character of the corporate ownership is also to be seen in the columns of valuation, where it is shown that the value of the vessels so owned stands at \$12,897,410, or \$3,552,795 over and above the combined valuation of vessels owned by individuals and joint stock companies. In the subjoined summary are presented the totalized figures of number, tonnage, and value by ownership of each class of steamers and sailing vessels:

TABLE E.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE FOR EACH CLASS OF VESSELS ON THE PACIFIC COAST, GROUPED UNDER THE HEAD OF INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP.

CLASSES OF VESSELS.	Total number of vessels.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
		Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	1,353	994	200,705	27	4,002	332	173,876	\$9,001,115	\$343,500	\$12,897,410
Steamers	531	252	34,114	25	3,368	254	133,021	3,147,650	324,500	12,054,305
Passenger and freight	354	179	27,140	18	2,825	157	99,526	2,417,850	246,500	9,926,405
Ferry	38	7	202	2	216	29	24,212	28,600	13,000	937,700
Fish	24	5	626	2	149	17	3,568	45,000	24,000	342,500
Harbor tugs	70	33	2,189	3	178	34	3,742	440,800	41,000	639,000
Yachts	3	2	45			1	18	4,000		2,500
No traffic report	42	26	3,912			16	1,955	211,400		136,200
Sailing vessels	822	742	166,591	2	634	78	40,855	5,853,465	19,000	843,105
Freight	647	587	157,048	1	594	59	36,836	5,369,835	15,000	727,505
Fish	60	46	4,084	1	40	13	2,248	199,555	4,000	77,400
Pilot boats	9	8	354			1	64	39,700		10,000
Yachts	25	25	612					69,300		
No traffic report	81	76	4,493			5	1,707	175,075		28,200

Table 4 presents the figures of Table 3 grouped according to localities; that is, to each of the nine districts of the coast it allots the various classes of vessels and enters them up by number, tonnage, and value, according to ownership, and the substance of what is there presented may be adequately arrived at by those not interested in details through a study of the following summary table:

TABLE F.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE OF THE FLEET OF EACH DISTRICT ON THE PACIFIC COAST, GROUPED UNDER THE HEAD OF INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP.

CUSTOMS DISTRICTS.	Total number of vessels.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
		Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	1,353	994	200,705	27	4,002	332	173,876	\$9,001,115	\$343,500	\$12,897,410
Steamers	531	252	34,114	25	3,368	254	133,021	3,147,650	324,500	12,054,305
San Diego, California	8	2	20			6	771	8,500		54,000
Wilmington, California	10	2	48			8	885	7,500		181,030
San Francisco, California	223	78	16,593	15	2,056	130	84,960	1,674,500	227,000	7,557,965
Humboldt, California	10	8	598			2	187	71,500		11,000
Southern Oregon, Oregon	15	11	485	3	173	1	113	44,100	22,500	4,000
Yaquina, Oregon	13	10	2,010			3	271	210,400		77,000
Oregon, Oregon	41	26	2,083	3	121	12	968	185,100	17,000	82,000
Willamette, Oregon	96	35	5,480	2	216	59	38,708	370,400	13,000	3,466,700
Puget sound, Washington	115	80	6,848	2	202	33	6,158	575,650	45,000	629,760
Sailing vessels	822	742	166,591	2	634	78	40,855	5,853,465	19,000	843,105
San Diego, California	21	19	319			2	142	21,975		15,000
Wilmington, California	13	13	694					37,400		
San Francisco, California	649	601	145,766	1	594	47	12,150	5,060,300	15,000	358,830
Humboldt, California	14	14	3,272					245,500		
Southern Oregon, Oregon	1	1	90					8,000		
Oregon, Oregon	36	35	626			1	64	40,080		10,000
Willamette, Oregon	6	6	1,996					38,985		
Puget sound, Washington	82	53	13,828	1	40	28	28,490	401,225	4,000	459,305

STATISTICS OF TRANSPORTATION.

STATISTICS OF CONSTRUCTION.

Tables 5 and 6 present the same statistics, but in two methods. They correspond in the plan of their presentation with Tables 3 and 4. The first takes up each class as a group and for each of the districts on the coast enters up the number, tonnage, and value for each material of construction, whether wood, composite, or iron and steel; while in Table 6 the facts connected with materials of construction are assigned to localities. The figures of the tables show that iron and steel are not yet largely used as materials of construction on the Pacific coast, only 25 of the entire fleet of sailing vessels and steamers being so constructed, while vessels of composite construction are almost unknown. However, such vessels as are constructed of iron and steel are of unusually large tonnage. The following summary table shows how much larger is the average tonnage of vessels built of these materials than the average tonnage of vessels built of wood or composite:

TABLE G.—SUMMARY SHOWING THE AVERAGE TONNAGE AND AVERAGE VALUE PER TON OF VESSELS CONSTRUCTED OF WOOD, COMPOSITE, AND IRON AND STEEL.

CLASSES OF VESSELS.	MATERIALS OF CONSTRUCTION.					
	Wood.		Composite.		Iron and steel.	
	Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.
Total	247	\$46.86	649	\$84.75	1,968	\$137.33
Steamers	240	71.85	1,089	91.83	2,009	139.34
Sailing vessels.....	252	32.22	209	47.85	997	40.12

In the subjoined summary the main facts of the relative size and value of the different classes of craft constructed of the materials under consideration are given:

TABLE H.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE OF EACH CLASS OF VESSELS ON THE PACIFIC COAST, WHETHER CONSTRUCTED OF WOOD, COMPOSITE, OR IRON AND STEEL.

CLASSES OF VESSELS.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.		
	Wood.		Composite.		Iron and steel.		Wood.	Composite.	Iron and steel.
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	1,326	328,076	2	1,298	25	49,209	\$15,373,960	\$110,000	\$6,758,065
Steamers	506	121,202	1	1,089	24	48,212	8,708,390	100,000	6,718,065
Passenger and freight ..	336	82,262	1	1,089	17	46,140	6,162,690	100,000	6,398,065
Ferry.....	37	24,215			1	415	939,300		40,000
Fishing.....	24	4,343					411,500		
Harbor tugs	66	5,540			4	569	985,300		135,000
Yachts	3	63					6,500		
No traffic report	40	4,779			2	1,088	202,600		145,000
Sailing vessels.....	820	206,874	1	209	1	997	6,665,570	10,000	40,000
Freight.....	645	193,272	1	209	1	997	6,062,340	10,000	40,000
Fish.....	60	6,372					280,955		
Pilot boats.....	9	418					49,700		
Yachts	25	612					69,300		
No traffic report	81	6,200					203,275		

TRAFFIC OPERATIONS.

From Table 7 it is seen that during the year of report the traffic movement of the Pacific coast fleet making returns amounted to 8,818,363 tons and 4,019,329 passengers. This traffic, it should be understood, is made up of that carried by steam or sailing vessels regularly engaged in the transportation of freight and passengers; the freight moved by towboats in freight laden lighters, scows, and other unrigged craft, together with lumber rafts, the traffic operations in this case being credited to the steamers doing the towing; that moved by unrigged craft, which was not reported on by any towing steamer, and which is therefore entered up as a separate account; the freight and passengers carried on ferryboats, with the exception of the traffic movement of the railroad ferryboats, and the freight traffic of those vessels owned by fishing concerns, but employed either to carry provisions and appliances to the men on the fishing grounds or to bring back their fish catch, and those engaged in carrying raw salmon to and bringing the canned fish from the canneries.

The ferryboats, independent of railroads, had a traffic of 14,772 tons freight and 2,639,095 passengers, these figures being included in the 8,818,363 tons freight and the 4,019,329 passengers, the traffic operations forming the base of this report. The railroad ferryboats carried 2,431,564 tons freight and 11,652,764 passengers, these figures being included in the report of "Transportation by railroads".

The railroad ferry business is not the only addition that should be made to the traffic report of the Pacific coast transportation by water. Another large set of figures is found in the freight movement of the steamers and sailing vessels registered in Atlantic ports but engaged wholly or partially in business on the Pacific coast. The steamers belonging to this class are those which form the western fleet of the Pacific Mail Steamship Company. These steamers were 10 in number, their terminals being San Francisco and Panama and San Francisco and Chinese ports, so that their freight movement distinctly belongs to the Pacific; whereas, from the fact that their home port is New York, the rules under which the census investigation was conducted required that that port should be credited with their equipment and income and expenditure. The freight and passenger movement, however, is to be credited to San Francisco, and is given in the following statement:

PACIFIC MAIL STEAMSHIP COMPANY'S FREIGHT AND PASSENGER TRAFFIC ON ITS PACIFIC OCEAN SERVICE IN 1889.

FREIGHT.		TONS.
Through New York and through San Francisco freight via Panama.....		27, 808
Outward freight from San Francisco to Mexico and Central American coast points...		20, 041
Inward freight to San Francisco from coast points		39, 204
Total freight, Panama line.....		87, 053
Outward freight to China and Japan seas		20, 709
Inward freight to San Francisco from China and Japan seas		35, 701
Total freight, China line.....		56, 410
Total freight, both lines.....		143, 463
PASSENGERS.		NUMBER.
Outward bound passengers, both lines		5, 539
Inward bound passengers, both lines.....		4, 614
Total passengers, both lines.....		10, 153

In connection with these figures should be mentioned \$1,550,665 of treasure carried outward from San Francisco and \$80,788 brought inward on the Panama line, and \$6,905,541 of treasure carried outward from San Francisco and \$250,000 brought to San Francisco on the China line, a total treasure movement of \$8,786,994, of which \$8,456,206 were taken out and \$330,788 were brought in.

The sailing vessels hailing from Atlantic home ports but conducting all or some portion of their operations in Pacific waters were 86 in number, distributed among Maine, Massachusetts, and New York ports as follows:

Belfast, Maine.....	1	Wiscasset, Maine.....	1	Portland, Maine.....	3
Searsport, Maine.....	3	Waldoboro, Maine.....	3	Boston, Massachusetts.....	12
Thomaston, Maine.....	5	Damariscotta, Maine.....	3	New Bedford, Massachusetts.....	4
Camden, Maine.....	3	Bath, Maine.....	28	New York, New York.....	20

These vessels did a general freighting business during 1889, and that part of it which is credited to the Pacific coast includes the freighting between domestic Pacific ports or from domestic Pacific to foreign ports; that is, it covers such operations as the carrying of wheat from San Francisco, California, to Liverpool, England, or from Portland, Oregon, to Hull, England; the carrying of lumber from Port Townsend, Washington, to Buenos Ayres, South America, or of sulphur from Yokohama, Japan, to San Francisco, California. In the conduct of this business these vessels made 686 trips, sailed over 1,240,533 miles, and carried 296,299 tons of merchandise.

In a computation conducted upon the lines laid down for this report mention should also be made of those craft trading to Pacific coast ports flying foreign flags but chartered by American concerns or individuals. The port of San Francisco presents eight examples of this kind. Two of these (steamers) sailed, respectively, under the Mexican and Hawaiian flags, and were engaged in bringing coal (some 8,000 tons) from Nanaimo, British Columbia, to San Francisco. Three other steamers formed the fleet of the Occidental and Oriental Steamship Company. They were under charter from an English company, and in 1889 carried out 25,589 tons of merchandise and \$10,218,525 of treasure and brought in 44,686 tons of merchandise and \$10,229,225 of bullion. In addition to this the Occidental and Oriental Steamship Company in 1889 carried 20,288 passengers. Two other steamers carried the Hawaiian flag and ran from San Francisco in the Australian and Sandwich islands trade, their operations standing for the movement of 34,887 tons of merchandise. The last example was a sailing vessel, and also flew the Hawaiian flag, but her operations could not be learned.

An addition to the above account of freight moved comes from an investigation into the towing business, not that of the towing of vessels in or out of harbor, but (1) the towing of barges, lighters, etc., and (2) the towing of logs and other lumber. It should be repeated here that the 314,597 tons of freight set down in Table 7 as the work of the unrigged do not stand as the total freight movement of the 489 unrigged, but only as the freight movement not reported by the steamers furnishing the motive power for these unrigged craft; and it is certain that, although a very great deal of towed freight is covered in the report of the steamers towing, the 314,597 tons of freight not so covered by no means make up the balance of freight moved in unrigged craft on the Pacific coast in 1889. There are two reasons for this:

(1) In the California ports comparatively little towing is done and the reports can be looked upon as reasonably complete; but in the northern rivers and on Puget sound the conditions are quite different. On Puget sound, for example, the commodities towed were chiefly farm produce, lumber, brick, stone, and lime. As a rule the barges and scows on which these commodities were placed are loaded by the shipper, while in very many cases these barges are owned by farmers, produce dealers, lumbermen, and those living generally along the sound. The same remarks may be applied to the barge business of the Columbia and Willamette rivers, of Shoalwater bay, and of rivers tributary or neighboring to these waterways. In order to get a certain base for an estimate a special attempt was made to secure full returns of the unrigged craft in Coos bay district. This, by the kind assistance of the collector of customs at that place, was satisfactorily accomplished, and the result is embodied in Table 7. Altogether, figuring on such estimates as these from direct but general information and from the reports of steamer captains, it would be a legitimate and proper calculation to add a freight movement of at least 700,000 tons to the unrigged business of the Pacific coast.

(2) Besides towing barges the steamboats of the northern ports were used for towing logs and rafts of lumber. Very diligent efforts were made from the outset to secure a full report of the amount of logs so towed, but it was found an impossibility, and it can be reasonably affirmed that in the schedules of Coos bay, Port Townsend, Astoria, Yaquina, Portland, and Eureka there should be 1,500,000 tons of logs, in round numbers, that do not find a place there.

DETAILS OF COMMODITIES.

An analysis of Pacific coast freight traffic can only be made of the 8,818,363 tons of freight whose movement was reported on in the census schedules. The first step in this analysis will be found in Table 8, in the form of a subdivision of this gross amount into the six following principal classes of commodities: agricultural products, coal, products of mines and quarries, lumber and other forest products, animal products including fish, manufactures and general merchandise.

The agricultural products include the yield alike of field, orchard, and garden, both at home and abroad.

The products of mines and quarries include rock, gravel (largely used in the manufacture of artificial stone pavement), ore, building stone, and salt.

Lumber and other forest products include match wood, railroad ties, piles, charcoal, and tan bark.

Animal products include live stock, wool, hides, fish, whale oil, seal skins, otter skins, dogfish oil, elk hides, elk horn, and kindred articles.

Manufactures and general merchandise include all such commodities as were returned by their carriers in the lump sum.

The Panama steamers brought as inward freight from Mexican and Central American ports to San Francisco sugar, coffee, cocoa, cochineal, limes, hides, skins, and ores; the freight taken to southern ports from San Francisco includes boilers, barbed wire and wire goods, beef and pork, car and railroad materials, canned goods, provisions, lumber, machinery, nails, live stock, silk goods, and wheat; the materials brought from China to San Francisco by the Pacific Mail Steamship Company's steamers consisted chiefly of beans, Java coffee, curios, indigo, gunny bags, hemp, jute, opium, rice, silk goods and raw silk, spices, manilla sugar, tea and tea dust, chowchow, bamboo, matting, plants and trees, rattan, tapioca, and tobacco; and the commodities carried from San Francisco to China and Japan consisted chiefly of animals, poultry, pearl barley, beans and peas, canned goods, flour, fruit and vegetables, ginseng, grain, groceries, hay, horns and hoofs, leather, lumber, machinery and castings, oil, quicksilver, shrimps and shrimp shells (sometimes running as high as 500 tons per steamer), dried fish, old junk (especially wire rope used for making nails), old glass (for glazing purposes), abalones, clocks (once a large trade), and corpses.

Omitting the 1,754,001 tons of manufactures and general merchandise, it will be seen that the largest commodity movement was in lumber and other forest products, the figures standing at 4,239,656 tons. Next come agricultural products, 1,152,100 tons, closely followed by coal, 1,075,600 tons. The last item, with the exception of animal products, fish, etc., which has already been referred to, is mines and quarries, the products of these amounting to 522,497 tons. Of these totals, the steamers moved 851,041 tons of agricultural products, 407,635 tons of coal, 305,551 tons of the products of mines and quarries, 3,023,547 tons of lumber and other forest products, 30,706 tons of animal products, and 1,123,460 tons of manufactures and general merchandise. Sailing vessels carried 262,559 tons of agricultural products, 627,995 tons of coal, 214,946 tons of the products of mines and quarries, 1,154,325 tons of lumber and other forest products, 43,803 tons of animal products, and 458,198 tons of manufactures and general merchandise. On the unrigged craft there was carried, over and above that reported by the steamers furnishing the motive power, 38,500 tons of agricultural products, 39,970 tons of coal, 2,000 tons of the products of mines and quarries, 61,784 tons of lumber and other forest products, and 172,343 tons of manufactures and general merchandise.

INTERDISTRICT TRAFFIC.

The figures of Table 8 are valuable only as showing the amount of freight moved by the fleets belonging to each of the customs districts and must not be taken as showing the traffic of any one port. It was to arrive at this result that the scheme of interdistrict movement, described on page 12, has been formulated and carried out. This is shown in detail in Tables 9 and 10. In these tables the 8,818,363 tons of freight, whose components were shown in Table 8, still form the total, and the entries show whither this freight was carried, whence it was brought, and how many miles were covered in its distribution. The entries were made so as to show the traffic movement of steamers with their unrigged consorts, of sailing vessels, and of the combined fleet for each district, while the same classification of commodities obtains in Table 9 that was observed in Table 8. The entries show that in nearly every case the vessels of each district traveled far in the disposition of their freight. It will be seen in the entries for the San Francisco fleet, for instance, that some of the vessels of that district carried 1,651 tons of coal and 896 tons of other products from points in Puget sound to other points in Puget sound, and that they traveled 724 miles in so doing; that other San Francisco vessels carried 61,764 tons of lumber from Puget sound to foreign ports and covered 228,285 miles in the traffic; that other San Francisco vessels traveled between ports on the Oregon coast and ports on the southern California coast, carrying 6,576 tons of lumber and 220 tons of agricultural products, the distance of their voyages being 29,188 miles; that others sailed between southern California coast points and points in Alaska and the Bering sea, carrying 638 tons of general merchandise, and sailing 2,400 miles; and that others traded between foreign ports and foreign ports, carrying 24,916 tons of coal, 12,612 tons of lumber, 230 tons of animal products and fish, and 900 tons of other merchandise, and traveled 166,363 miles in this trade.

By internal traffic is meant the freight movement within the six coast districts, that is, from point to point in the districts embracing (1) southern California coast, (2) San Francisco bay and tributary rivers, (3) northern California coast, (4) Oregon coast, (5) Columbia and Willamette rivers, and (6) Puget sound and the sea coast of Washington.

By coastwise traffic is meant the freight movement between the points of any two of the coast districts described above.

By Atlantic traffic is meant the freight movement between United States Pacific and Atlantic coast points.

By foreign traffic is meant the freight movement between foreign ports and any other port, including trade between foreign port and foreign port.

By Alaska and Bering sea traffic is meant the freight movement between points on the Alaskan coast or Bering sea and any of the six coast districts.

The proposed segregation of freight movement under these heads is given in the following summary:

TABLE I.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, GROUPED UNDER THE HEADS OF INTERNAL, COASTWISE, ATLANTIC, FOREIGN, AND ALASKA AND BERING SEA TRADE.

WITHIN THE—	NUMBER.	
	Tons.	Miles.
Total	5,634,151	5,733,186
1 Southern California coast district	183,594	75,782
2 San Francisco bay and rivers district	2,043,051	2,526,889
3 Northern California coast district	174,536	41,957
4 Oregon coast district	206,742	133,374
5 Columbia and Willamette rivers district	590,405	1,207,394
6 Puget sound and Washington district	2,435,823	1,747,790

INTERNAL TRAFFIC.

STATISTICS OF TRANSPORTATION.

TABLE I.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, ETC.—Continued.

COASTWISE TRAFFIC.

FROM—		TO—		Tons.	Miles.
Total coastwise traffic				2,372,825	3,153,433
Total				163,442	230,792
1 Southern California coast.....	2 San Francisco bay and rivers.....	161,308	134,485		
1 Southern California coast.....	4 Oregon coast.....	27	17,305		
1 Southern California coast.....	5 Columbia and Willamette rivers.....	1,942	19,632		
1 Southern California coast.....	6 Puget sound and Washington.....	165	59,370		
Total		483,825	1,234,290		
2 San Francisco bay and rivers.....	1 Southern California coast.....	320,967	134,485		
2 San Francisco bay and rivers.....	3 Northern California coast.....	39,883	328,366		
2 San Francisco bay and rivers.....	4 Oregon coast.....	44,632	169,264		
2 San Francisco bay and rivers.....	5 Columbia and Willamette rivers.....	14,293	38,933		
2 San Francisco bay and rivers.....	6 Puget sound and Washington.....	64,050	563,242		
Total		623,417	544,433		
3 Northern California coast.....	1 Southern California coast.....	98,783	211,574		
3 Northern California coast.....	2 San Francisco bay and rivers.....	522,434	328,797		
3 Northern California coast.....	5 Columbia and Willamette rivers.....	1,260	2,080		
3 Northern California coast.....	6 Puget sound and Washington.....	940	1,982		
Total		209,845	238,302		
4 Oregon coast.....	1 Southern California coast.....	17,276	52,530		
4 Oregon coast.....	2 San Francisco bay and rivers.....	191,255	172,293		
4 Oregon coast.....	5 Columbia and Willamette rivers.....	1,102	4,422		
4 Oregon coast.....	6 Puget sound and Washington.....	212	9,048		
Total		68,364	216,607		
5 Columbia and Willamette rivers.....	1 Southern California coast.....	11,418	20,047		
5 Columbia and Willamette rivers.....	2 San Francisco bay and rivers.....	42,720	155,905		
5 Columbia and Willamette rivers.....	3 Northern California coast.....	2,445	1,004		
5 Columbia and Willamette rivers.....	4 Oregon coast.....	4,085	16,722		
5 Columbia and Willamette rivers.....	6 Puget sound and Washington.....	7,696	22,299		
Total		823,032	688,948		
6 Puget sound and Washington.....	1 Southern California coast.....	47,595	87,290		
6 Puget sound and Washington.....	2 San Francisco bay and rivers.....	773,484	563,241		
6 Puget sound and Washington.....	3 Northern California coast.....	321	2,630		
6 Puget sound and Washington.....	4 Oregon coast.....	400	9,048		
6 Puget sound and Washington.....	5 Columbia and Willamette rivers.....	2,132	26,739		

ATLANTIC TRAFFIC.

Total		5,550	30,250
2 San Francisco bay and rivers.....	8 Atlantic ports.....	(a)	13,250
8 Atlantic ports.....	2 San Francisco bay and rivers.....	5,550	17,000

FOREIGN TRAFFIC.

Total foreign traffic.....		707,085	2,811,896
Total		278,997	1,392,720
1 Southern California coast.....	7 Foreign ports.....	4,720	62,374
2 San Francisco bay and rivers.....	7 Foreign ports.....	138,043	785,596
3 Northern California coast.....	7 Foreign ports.....	12,789	74,573
4 Oregon coast.....	7 Foreign ports.....	1,160	9,185
5 Columbia and Willamette rivers.....	7 Foreign ports.....	3,286	23,732
6 Puget sound and Washington.....	7 Foreign ports.....	115,238	418,305
8 Atlantic ports.....	7 Foreign ports.....	3,560	16,155
9 Alaska and Bering sea.....	7 Foreign ports.....	201	2,750

a Ballast.

TABLE I.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, ETC.—Continued.

FOREIGN TRAFFIC—Continued.

FROM—	TO—	Tons.	Miles.
Total		389,310	1,250,287
7 Foreign	1 Southern California coast.....	39,594	82,211
7 Foreign	2 San Francisco bay and rivers.....	319,880	782,505
7 Foreign	5 Columbia and Willamette rivers.....	5,448	30,873
7 Foreign	6 Puget sound and Washington.....	18,718	328,111
7 Foreign	8 Atlantic ports.....	3,130	16,155
7 Foreign	9 Alaska and Bering sea.....	2,534	10,432
7 Wholly foreign		38,778	168,889

ALASKA AND BERING SEA TRAFFIC.

Total Bering sea traffic		98,752	544,751
Total		50,795	288,589
1 Southern California coast.....	9 Bering sea.....	638	2,400
2 San Francisco bay and rivers.....	9 Bering sea.....	49,357	234,830
5 Columbia and Willamette rivers.....	9 Bering sea.....	(a)	25,900
6 Puget sound and Washington.....	9 Bering sea.....	800	25,459
Total		47,774	245,540
9 Bering sea.....	2 San Francisco bay and rivers.....	45,040	234,831
9 Bering sea.....	6 Puget sound and Washington.....	1,828	10,715
9 Bering sea.....	9 Bering sea.....	183	10,610

a Ballast.

From the preceding summary it will be seen that the whole internal traffic amounted to the movement of 5,634,151 tons, and that while the internal trade of the San Francisco bay and rivers amounted to 2,043,051 tons, that of Puget sound district was even greater, amounting to 2,435,823 tons.

In considering the coastwise trade it will be seen that from points on the southern California coast to all other points on the Pacific coast there were sent out 163,442 tons; from points on the San Francisco bay and rivers, 483,825 tons; from the northern California coast, 623,417 tons; from the Oregon coast, 209,845 tons; from the Columbia and Willamette rivers, 68,364 tons, and from Puget sound, 823,932 tons, making a total of 2,372,825 tons of freight. This shows that the district from which the greatest coastwise trade emanated was No. 6, Puget sound and Washington. The explanation of this is found in the 773,484 tons of freight brought from Puget sound to San Francisco made up of 40,909 tons of coal and 167,850 tons of lumber. The next largest coastwise trade is that emanating from district No. 3, northern California coast, the bulk of this being 522,434 tons of freight, mostly lumber, brought to San Francisco.

The trade between Pacific coast ports and Atlantic ports was confined on the Pacific side to San Francisco, and even in this case the business done in American vessels registered in San Francisco was only one of imports, the 5,550 tons of freight received being general merchandise.

The foreign trade amounted to 707,085 tons, made up of 278,997 tons of exports, 389,310 tons of imports, and 38,778 tons of wholly foreign movement. As might naturally be expected from its importance, San Francisco stands first in the figures of exports and imports, these being respectively 138,043 and 319,880 tons. Puget sound stands next in importance as an exporter, the figures being 115,238 tons, although its imports fall to 18,718 tons. In the case of San Francisco, the exports are made up of coal, lumber, agricultural products, and general merchandise, while in the case of Puget sound they are comprised almost entirely of coal and lumber.

The Alaska and Bering sea trade is almost equally divided between exports and imports, the first being 50,795 tons, and the second 47,774 tons. With the exception of 638 tons of general merchandise taken by San Francisco vessels plying from southern California ports, and 800 tons of lumber taken in San Francisco vessels from Puget sound, all the trade to Alaska and Bering sea was conducted by San Francisco vessels plying from San Francisco. The trade from Alaska and Bering sea was mostly with San Francisco, the two great commodities being coal and animal products including fish.

STATISTICS OF TRANSPORTATION.

MILEAGE.

The relation of the mileage of this traffic to the freight movement is very distinctly shown in the accompanying summary giving the freight moved, distance covered, and average distance of movement per ton of each class of traffic. The distance covered in the movement of the 5,634,151 tons of freight constituting the internal traffic was 5,733,186 miles, or an average movement per ton of 1.02 miles. The distance traveled in the coastwise traffic movement was 3,153,432 miles and the freight moved 2,372,825 tons, this giving an average movement per ton of 1.33 miles. The distance covered in the foreign freight traffic was 2,811,896 miles, or an average movement per ton of 3.98 miles. The average distance in the Atlantic business was even greater, being 5.45 miles, but this large average is due to the fact that of the 30,250 miles traveled, 13,250 miles were in ballast. The Alaska and Bering sea average movement per ton was the highest of all, being 5.52 miles, and this was partly due to the fact that of the 544,751 miles traveled, 25,900 were in ballast, and partly to the other fact that while the cruises in the Bering sea are exceedingly long the freight is much smaller than that of vessels engaged in usual lines of commerce.

TABLE J.—SUMMARY SHOWING THE FREIGHT MOVED, DISTANCE COVERED, AND AVERAGE DISTANCE OF EACH TON OF FREIGHT MOVED IN THE FIVE DIVISIONS OF TRAFFIC MOVEMENT BY ALL OPERATING CRAFT.

TRAFFIC MOVEMENT.	Freight moved: (Tons.)	Distance covered. (Miles.)	Average movement per ton. (Miles.)
Total	8,818,363	12,273,515	1.39
Internal	5,634,151	5,733,186	1.02
Coastwise	2,372,825	3,153,432	1.33
Foreign	707,085	2,811,896	3.98
Atlantic	5,550	30,250	5.45
Bering sea.....	98,752	544,751	5.52

EARNINGS AND EXPENSES.

In Table 11 the figures are given which show how the business of transportation by water paid during the year ended December 31, 1889, for all operating craft over 5 tons burden. These figures are furnished under the headings of gross earnings, expenses, and net earnings, and are given for the steamers and unrigged craft and for sailing vessels allotted to their customs districts. The figures in the first part of the table indicate that the gross earnings of the whole operating fleet amounted to \$20,628,316.28, the expenses to \$17,274,809.30, leaving the net earnings at \$3,353,506.98. The largest figures of this total are for the district of San Francisco, the gross earnings of its operating fleet standing at \$14,191,341.93, with expenses of \$11,701,926.71 and net earnings at \$2,489,415.22. The next largest account is that of the Willamette or Portland district, its fleet earning \$3,439,199.57, paying out \$3,088,220.32, and making as net earnings \$350,979.25. The net earnings of the Puget sound or Port Townsend district fleet were much larger, the figures being \$411,862.61, which is larger than the net earnings of the fleet registered in all the districts of Oregon, this sum being a profit on the gross earnings of \$2,214,731.23, after paying out \$1,802,868.62 for expenses. The other districts placed in the order of their importance as judged from the financial account stand as Oregon, Humboldt, Yaquina, Wilmington, southern district of Oregon, and San Diego.

Of the totals of the combined fleets the gross earnings of the operating steamers and unrigged craft amounted to \$13,237,222.29, the expenses to \$11,446,692.77, and the net earnings to \$1,790,529.52. San Francisco maintains its importance in the returns of the steamers' accounts just as it did in the returns of the entire fleet, the gross earnings being \$8,015,094.94, the expenses \$6,872,414.76, and the net earnings \$1,142,680.18. The Willamette district also retains its relative importance, the gross earnings being \$3,383,404.26, the expenses \$3,050,676.43, and the net earnings \$332,727.83. Puget sound again comes third, the gross earnings of its steam and unrigged fleet being \$1,241,116.20, the expenses \$988,892.50, and its net earnings \$252,223.70. The steamers of the Oregon or Astoria district and the southern Oregon or Coos bay district made a presentable showing of net earnings, these being \$45,229.11 on gross earnings of \$212,478.11 for Oregon and \$14,093.97 on \$56,499.33 for southern Oregon. The steamers of Wilmington and Humboldt or Eureka districts make a poor showing. Of \$64,406.14 of gross earnings the expenses of running the Wilmington steamers amounted to \$63,576.84, leaving net earnings of only \$829.30; and while the gross earnings of the Humboldt steamers amounted to \$102,488.21, the expenses amounted to \$87,232.30, leaving net earnings of only \$15,255.91. The steamers of the San Diego and Yaquina districts ran even less profitably, the account of San Diego showing gross earnings of \$42,507.47, with expenses of \$45,985.04, leaving a deficit of \$3,477.57; and the account of Yaquina showing earnings amounting to \$119,227.63, expenses to \$128,260.54, leaving a deficit of \$9,032.91.

In the financial account of the sailing vessels a steady rate of profit is maintained. The gross earnings were \$7,391,093.99, the expenses \$5,828,116.53, leaving net earnings of \$1,562,977.46, or but very little less than the

net earnings in the \$13,237,222.29 gross earnings of the steamers. The figures of the different districts need not be quoted, except in the cases of Willamette and Puget sound. In the returns of the steamer fleet Willamette easily led, but in the figures of the sailing fleet the positions are reversed. The gross earnings of the Puget sound sailing vessels were \$973,615.03, while those of Willamette were but \$55,795.31, and the net earnings of Puget sound sailing vessels were \$159,638.91, while those of the Willamette sailing vessels were but \$18,251.42.

The classes or occupations for which the account of earnings and expenses has been made up are passenger and freight vessels, ferryboats, fishing vessels, harbor tugs, and pilot boats. Their financial account is given in detail in Tables 16 to 23, inclusive, entitled "General operations by classes". The earnings and expenses of the five classes will be found in the accompanying summary. The gross earnings and the expenses of pilot boats are equal, since the pilots do not report their professional earnings. The boats are used simply to carry the pilots to vessels and the earnings of the boats as such are the expenses of maintaining crew and equipment. The gain or loss is that of pilotage, not that of running the boats.

TABLE K.—SUMMARY SHOWING THE TOTAL EARNINGS AND EXPENSES OF THE OPERATING FLEET OF THE PACIFIC COAST.

CLASSES OF OCCUPATIONS.	Gross earnings.	Expenses.	Net earnings.
Total	\$20,628,316.28	\$17,274,809.30	\$3,353,506.98
Passenger and freight	18,112,955.63	14,898,141.32	3,214,814.31
Ferryboats	994,475.95	964,904.32	29,571.63
Fishing vessels	719,872.25	697,836.45	22,035.80
Harbor tugs	765,305.72	678,220.48	87,085.24
Pilot boats	35,706.73	35,706.73	.....

In Table 12 the \$14,898,141.32 of expenses which were reported for the 1,001 vessels engaged in traffic operations exclusive of ferryboats are reduced to the principal items making up the sum. These items are port charges, wages, provisions, current repairs, fuel (for the steamers), commissions, insurance, taxes, and office expenses, together with two entries for what other running and shore expenses may not have been included in the list of items just quoted. These items of expenses are distributed among the steamers and sailing vessels for each district of registration with totals for the states and coast. The expenses of the unrigged craft are included in the accounts of the steamers. By far the largest item of expenses was that of wages, the figures being \$5,212,639.20, of which amount \$2,924,205.19 were paid on board the steamers and \$2,288,434.01 on board the sailing vessels. Of the total wages San Francisco paid \$1,655,683.25 to steamer hands and \$1,904,194.72 to the crews of the sailing vessels, while the Willamette or Portland shipowners paid out \$694,578.16 to the officers and men of the combined fleet, Puget sound's wage list for the steamers and sailing vessels being \$683,069.31.

The next largest item of expense was that of fuel, the cost of which amounted to \$2,094,523.42. Provisions cost \$1,507,183.73, of which \$832,191.57 were expended on steamers, and \$674,992.16 on sailing vessels; current repairs cost \$1,098,232.29, the steamers' portion of that expense being \$613,703.33 and the sailing vessels' part being \$484,528.96. The cost of insuring the steamers was \$384,795.87 and the sailing vessels \$158,142.14. Port charges of the coast freighting fleet amounted to \$292,085.09, commissions to \$175,080.30, and taxes to \$125,655.76.

EMPLOYÉS AND WAGES.

Table 13 treats in detail of the monthly wages of all classes of employés on vessels engaged in the transportation of passengers and freight on the Pacific coast in the year 1889, exclusive of ferryboats. Of these employés the steamer list (which contains the account of the crews of the unrigged craft) includes captains, first mates, second mates, third mates, boatswains, clerks, pursers, surgeons, first engineers, second engineers, third engineers, firemen, coal passers, wheelmen, pilots, lookouts, watchmen, cooks, bakers, cooks' assistants, pantrymen, butchers, seamen, deck hands, porters, oilers, water tenders, stewards, storekeepers, waiters, boys, chambermaids, stewardesses, and carpenters; while the sailing vessel list includes captains, first mates, second mates, clerks, wheelmen, pilots, lookouts, watchmen, cooks, cooks' assistants, seamen, stewards, boys, and carpenters. The number of each class of employés for steamers and sailing vessels is given by districts for the coast and in a comprehensive total. From this latter have been worked out the accompanying summaries which show the aggregate and average monthly payments made to each class.

STATISTICS OF TRANSPORTATION.

TABLE L.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYÉS ON ALL VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ONE MONTH OF THE YEAR 1889, EXCLUSIVE OF FERRYBOATS.

EMPLOYÉS.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	10,396	\$521,502.86	\$50.16
Captains.....	1,001	95,175.97	95.08
First mates.....	685	39,573.77	57.77
Second mates, third mates, and boatswains.....	432	20,756.16	48.05
Clerks and pursers.....	189	12,652.50	66.94
Surgeons.....	2	110.00	55.00
First engineers.....	353	35,798.54	101.41
Second and third engineers.....	251	18,650.00	74.30
Firemen and coal passers.....	657	29,847.26	45.43
Wheelmen and pilots.....	134	9,509.17	70.96
Lookouts.....	24	1,039.50	43.31
Watchmen.....	160	6,702.73	41.89
Cooks and bakers.....	726	35,339.45	48.68
Cooks' assistants, pantrymen, and butchers.....	393	10,952.28	27.87
Seamen.....	3,331	127,817.33	38.37
Deck hands and porters.....	939	38,344.25	40.84
Oilers and water tenders.....	172	8,053.37	46.82
Stewards and storekeepers.....	192	9,440.00	49.17
Waiters.....	455	11,612.58	25.52
Boys.....	163	3,858.00	23.67
Chambermaids and stewardesses.....	18	445.00	24.72
Carpenters.....	119	5,825.00	48.95

TABLE M.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYÉS ON ALL STEAMERS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ONE MONTH OF THE YEAR 1889, EXCLUSIVE OF FERRYBOATS.

EMPLOYÉS.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	5,825	\$311,545.22	\$53.48
Captains.....	354	41,271.46	116.59
First mates.....	286	18,783.87	65.68
Second mates, third mates, and boatswains.....	138	7,556.16	54.75
Clerks and pursers.....	188	12,552.50	66.77
Surgeons.....	2	110.00	55.00
First engineers.....	353	35,798.54	101.41
Second and third engineers.....	251	18,650.00	74.30
Firemen and coal passers.....	657	29,847.26	45.43
Wheelmen and pilots.....	128	9,204.17	71.91
Lookouts.....	19	844.50	44.45
Watchmen.....	153	6,407.73	41.88
Cooks and bakers.....	206	14,544.45	49.14
Cooks' assistants, pantrymen, and butchers.....	267	8,372.28	31.36
Seamen.....	800	35,090.10	43.86
Deck hands and porters.....	939	38,344.25	40.84
Oilers and water tenders.....	172	8,053.37	46.82
Stewards and storekeepers.....	177	8,870.00	50.11
Waiters.....	455	11,612.58	25.52
Boys.....	140	3,517.00	25.12
Chambermaids and stewardesses.....	18	445.00	24.72
Carpenters.....	32	1,670.00	52.19

TRANSPORTATION ON THE PACIFIC COAST.

TABLE N.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYÉS ON ALL SAILING VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ONE MONTH OF THE YEAR 1889.

EMPLOYÉS.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	4,571	\$209,957.64	\$45.93
Captains.....	647	53,904.51	83.31
First mates.....	399	20,789.90	52.11
Second mates, third mates, and boatswains.....	294	13,200.00	44.90
Clerks.....	1	100.00	100.00
Wheelmen and pilots.....	6	305.00	50.83
Lookouts.....	5	195.00	39.00
Watchmen.....	7	295.00	42.14
Cooks.....	430	20,795.00	48.36
Cooks' assistants.....	126	2,580.00	20.48
Seamen.....	2,531	92,727.23	36.64
Stewards.....	15	570.00	38.00
Boys.....	23	341.00	14.83
Carpenters.....	87	4,155.00	47.76

AVERAGES AND AGGREGATE WAGES.

So far the subject of employés, their number and wages, has only been considered in connection with the freight and passenger carrying vessels, exclusive of ferryboats, and for an illustrative month. In the eight tables numbered from 16 to 23, inclusive, treating of the general operations by classes, not only are the details of equipment and traffic operations given of all the different classes of vessels, but there is also given for each class such details of wages and employés as the number of common seamen employed in each district and state, the average wages paid to common seamen, the number of men of all grades making up the ordinary crews, the total number of men employed, and the total amount of money paid out as wages to officers and crews during the year. Gathering the facts presented in these tables, they are shown in the following summary:

TABLE O.—SUMMARY SHOWING TOTAL AND AVERAGE WAGES PAID ORDINARY CREWS AND TOTAL NUMBER OF MEN EMPLOYED ON ALL OPERATED VESSELS, OF EVERY CLASS OF OCCUPATION, ON THE PACIFIC COAST DURING THE YEAR 1889.

CLASSES OF OCCUPATIONS.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed at different times.	Total wages paid during year.
Total	4,302	\$38.36	12,181	33,656	\$6,127,450.60
Passenger and freight.....	3,331	38.37	10,396	30,332	5,212,639.20
Ferryboats.....	126	59.00	478	1,150	395,157.00
Fishing vessels.....	700	34.97	866	1,485	247,028.56
Harbor tugs.....	25	42.59	374	573	247,630.40
Pilot boats.....	14	33.77	31	71	16,310.00
Yachts and pleasure boats.....	16	36.08	36	45	8,685.44

In connection with the preceding summary two or three items are to be noted. In the first place, the "number of men employed" does not stand for the number of men who received a year's employment during 1889, but indicates the number of men to whom whole or partial employment was given during that year; that is, supposing the ordinary crew of a vessel was 6 men, and 14 men were shipped during the year, then the 14 men are set down as having found employment. In the column entitled "ordinary crews" there is given the total number of men required to work and officer the 1,230 operating vessels (exclusive of unriggered, as their crews are included in those of the operating vessels) reported on for the different ports. In the next place, the entries in the column of "wages paid" represent the total wages paid during the year at the average rate of wages to the officers and men making up the ordinary crews for such time as they were employed; that is, supposing the vessel's ordinary crew included 16 seamen and the wages paid by the owner of that vessel was \$20 a month per man and the men were employed 10 months, then the amount set down would be \$3,200.

In a great number of cases the captain or owner made the return that the vessels were run on shares, and that consequently he could not give any account of wages paid. In such cases it was insisted that the captain or owner should reckon as "wages paid" the amount which he would have had to pay to captains

or men had such been employed, and then to enter that amount up for the number of days during which the vessel was in service. The same plan was adopted in the case of the numerous San Francisco bay schooners, where the captain and deck hands were paid out of what is called the "stock"; that is, the gross earnings of the vessel, or where the fashion of the "lay" is followed, or when the captain was paid a percentage of earnings; so that by thus obtaining a uniform style of report the \$6,127,450.69 can be accepted as the amount actually paid out or which would have been paid to the persons making up the crew list of the 1,230 vessels reported on, figuring on the basis of the average rate of wages paid in Pacific coast ports.

NATIONALITY OF EMPLOYÉS.

The endeavor to secure a report on the nationality of the employés was only partially successful. No data are at hand from which to say whether the number of native born citizens of the United States who follow the sea is increasing or not on the Pacific coast, but the opinion of a few intelligent shipowners who were approached on the subject was that such a tendency did exist. The returns themselves show, at any rate, that with very few exceptions the masters of American vessels of large burden were American born. The great bulk of the "ordinary seamen" hailed from the Baltic districts and the north of Europe, which to the ship's master was known as Scandinavia, and whether a man was a Finn or a Hollander he was classed as a Scandinavian. Of those returned as coming from Great Britain and Ireland the majority were Welsh or Irish. The number of Chinese sailors was never large on the Pacific coast, and the 286 reported were either crews of foreign going steamers or cooks of big vessels. The term "other countries" is an all-embracing one, as may be gathered from the returns of two sample vessels. One, a lumber vessel, carried a crew of 18, including men and officers, although 78 were taken into partial employment during the year, and of this latter number Scotland furnished 1, the United States 19, Germany 1, England 1, Russia and Finland 16, Italy 2, China 6, Portugal 2, Norway 15, Sweden 15; while the second, a whaler, had a crew consisting of Americans, English, Greeks, Mexicans, Scandinavians, Indians, and Portuguese. Such information as could be secured on this subject is set down in the following summary:

TABLE P.—SUMMARY SHOWING THE PRINCIPAL NATIONALITIES OF OFFICERS AND MEN EMPLOYED ON OPERATING VESSELS REGISTERED IN PACIFIC COAST PORTS IN THE YEAR 1889.

DISTRICTS.	STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT.					
	Total number of men employed at different times.	United States.	Scandinavia.	Great Britain and Ireland.	China.	Other countries.
Total for coast.....	33,656	5,074	12,309	1,163	286	14,824
California.....	25,139	2,109	10,167	575	60	12,138
San Diego.....	106	60	28	1	.....	17
Wilmington.....	167	63	39	27	2	36
San Francisco.....	24,545	2,029	10,019	524	58	11,915
Humboldt.....	321	47	81	23	.....	170
Oregon.....	4,497	1,181	631	288	144	2,253
Southern Oregon.....	76	50	15	4	1	6
Yaquina.....	318	68	22	2	12	214
Oregon.....	604	277	54	16	6	251
Willamette.....	3,499	786	540	266	125	1,782
Washington, Puget sound.....	4,020	1,694	1,511	300	82	433

FUEL ACCOUNT.

An itemization has been made of the fuel account in Table 15, wherein are set down the amounts of coal and wood burned by the passenger and freight steamers, ferryboats, harbor tugs, and steam yachts during the operating year of 1889, together with the cost of the fuel. From this table it will be seen that the total cost of the fuel was \$2,467,882.17. Of this sum the coal, which amounted to 371,977 tons, cost \$2,117,032.65; while the wood, of which 163,669 cords were burned, cost \$350,849.52, making the average price of the coal \$5.69 per ton and the average price of wood \$2.14 per cord. The summary on the following page gives the quantities of fuel consumed.

TABLE Q.—SUMMARY SHOWING THE QUANTITIES OF COAL AND WOOD BURNED BY PASSENGER AND FREIGHT STEAMERS, FERRYBOATS, HARBOR TUGS, AND STEAM YACHTS REGISTERED IN PACIFIC COAST PORTS FOR THE YEAR 1889.

DISTRICTS.	Coal. (Tons.)	Wood. (Cords.)
Total for coast	371,977	163,669
California	291,980	14,299
San Diego	1,842	.....
Wilmington	1,878	2
San Francisco	286,625	10,955
Humboldt	1,635	2,342
Oregon	54,743	95,643
Southern Oregon	3	3,496
Yaquina	2,945	2,559
Oregon	79	14,896
Willamette	51,716	74,692
Washington, Puget sound	25,254	53,727

GENERAL OPERATIONS.

In the eight tables, 16 to 23, inclusive, the important figures given in the various presentations of equipment, traffic, and financial data are segregated and given for each class of vessel according to its occupation. These tables are drawn out as nearly as possible on a uniform plan. One or two entries, however, need explanation, even at the risk of some slight repetition.

Table 16, for instance, classes as freighters those vessels actually carrying freight, all towboats engaged in moving freight, and those craft owned by fishing concerns but used as freighters. The freight movement given under the head of unrigged in this table is that which was not reported on by any towing steamer, and is therefore entered up as a separate account.

The figures in Table 17, giving the freight and passenger traffic and the earnings and expenses of railroad ferryboats, were needed to make the report on the ferry industry a complete one.

Those vessels which were engaged in fishing, sealing, whaling, etc., but which only incidentally carried freight and whose earnings were from the sale of the catch, are the "fishing vessels", which are reported on separately in Table 18.

The harbor tugs reported on in Table 19 are those employed in the towing of vessels already reported on, and in all general harbor operations (except that of regularly towing barges and lumber), while the floating channel property referred to consists of dredgers, pile drivers, water boats, etc.

The yachts and pleasure boats given in Table 21 are, it should be remembered, those of over 5 tons burden, this minimum of tonnage excluding the small pleasure boats.

The number of vessels engaged in all of the occupations shown in Tables 16, 17, 18, 19, 20, and 21 does not, however, make up the total of those given in Table 1, "Equipment of fleets, all craft", although their income, expenditures, and traffic operations would make up the total of the returns given in Table 7, "Traffic in general", and Table 11, "Financial account in general". The difference in the equipment account is made up in Table 22, entitled "No traffic report". In this are given the number, tonnage, and value of all such craft as had no traffic report either because of being out of commission, from having been lost prior to or during 1889, because of being sold to foreign owners or being untraceable.

COMPARATIVE STATISTICS.

In considering the comparative statistics embraced in Tables 24 to 37, inclusive, it must be remembered that the figures are derived from two sources, according to the material at hand. The first five tables are made up from the data given in the transportation volume of the Tenth Census compared with such totals drawn from the report of the present census as could be comparatively presented. It may be repeated that the only branch of transportation on the Pacific coast fully reported on at the Tenth Census was that conducted by steamers, so that the tabulation of comparative census figures is necessarily restricted to the operations of this class of craft, though the number and tonnage of sailing vessels and unrigged craft were given.

The following summary was in the report on transportation for the Tenth Census:

PACIFIC COAST IN 1880.

There were 319 steamers owned on the Pacific coast in 1880. Of these steamers 178 were owned in California, 89 in Oregon, and 52 in Washington territory.

They measured 97,004.88 tons, and were valued at \$6,477,500, averaging 304.09 tons apiece, with an average value of \$20,306.

The capital invested in these steamers, exclusive of dock property, was \$8,854,490, and they gave employment to 3,008 men.

Gross earnings here were \$6,362,770, or 71.9 per cent on the capital invested. Excepting in the case of a few of the large and well established lines, money was lost in the competition with the railroads, and there has been a gradual withdrawal of lines for several years past in consequence of this competition. The amount paid for services here was \$1,953,451, or an average of \$649.41 per annum for each employé. The passenger movement was 6,604,712, of which 300,752 were regular passengers and 6,303,960 were ferry passengers. The freight movement was reported at 2,087,293 tons, of which 249,583 tons were carried by ocean steamers, 838,019 tons by inland passenger steamers, 240,298 tons by freight steamers, and 759,393 tons by ferry steamers.

The fuel consumed in this group, amounting to 146,407 tons of coal and 103,446 cords of wood, shows an average of 1.50 tons of coal to the ton of measurement and 1.06 cords of wood.

Table 24 shows that in 1880 the Pacific coast fleet of steamers and unrigged craft numbered 534, with a tonnage of 125,090 and a value of \$6,620,980, and that in 1889 the coast fleet of steamers and unrigged craft numbered 1,020, had a tonnage of 233,859 and a value of \$16,351,800, an increase of 486 in number, 108,769 tons in tonnage, and \$9,730,820 in value. This increase, it will be seen, is quite as much in the steamers as it is in the unrigged craft, and is about equally distributed between the fleets of California, Oregon, and Washington. The classification of the steamer fleets for both years has been made in Table 25 by passenger and freight carrying boats, ferryboats, towing and harbor tugs, and miscellaneous craft, and from this classification it is seen that the passenger and freight carrying craft in 1880 numbered 224, with a tonnage of 70,392 and a value of \$4,414,900, while in 1889 the freighters numbered 354, had a tonnage of 129,490 and a value of \$12,660,755, an increase of 130 in number, 59,098 in tonnage, and \$8,245,855 in value.

EARNINGS AND WAGES, 1880 AND 1889.

The financial account of the steamers in 1880 was limited to the gross earnings and wages, and only these are given for both years in Table 26, and because the returns in 1880 were made only for states, while in 1889 they were made for districts, the comparison by localities is limited to states. All that can be shown, therefore, is that in 1880 the gross earnings on all the reporting steamers of the Pacific coast amounted to \$6,362,770, while in 1889 they had risen to \$13,237,222, a gross increase of \$6,874,452 and an average annual increase of \$763,828. The amount paid out in wages on steamers in the years under consideration is given in Table 26, because it is the only item of expense that can be compared, but a better consideration of it can be had from a study of Table 27. Here again, as in all other tables dealing with employés, the entry entitled "Total number of men making up the ordinary crews", is to be accepted as indicating the total number of men required to work all the reporting steamers and not the total number of men employed during the year. The number of men making up the complement of the steamer crews in 1880 was 3,008, while in 1889 the number was 6,818. To these there was paid out as wages during 1880 \$1,953,451, while in 1889 the total wages paid amounted to \$3,682,062. The average annual wages per man in 1880 was \$649.42 and \$540.05 in 1889, an average annual decrease of \$109.37. It may be added that the average annual decrease for the states making up this average annual decrease for the coast was \$22.35 in California, \$275.85 in Oregon, and \$240.94 in Washington.

FREIGHT AND PASSENGER TRAFFIC, 1880 AND 1889.

The same remarkable increase that was seen in the number, tonnage, and value of the steamers of 1889 over those of 1880 is shown in the increase of freight and passenger traffic. In 1880 the freight moved on the steamers was 2,087,293 tons, while in 1889 it was 8,173,504 tons, an increase of 6,086,211 tons, or 292 per cent. It will be observed that in the freight movement of California the railroad ferry freight is also included in the 1889 figures, and this is done because the ferry figures were also included in the 1880 report. The passenger traffic in 1880 amounted to 6,604,712, while in 1889 there were 15,672,093 passengers.

FLEETS, 1880 AND 1889.

The comparative statistics found in Table 29 and the ten following tables have been gathered from the reports of the Bureau of Navigation. Table 29 gives the number and tonnage of the steamers, sailing vessels, and barges registered in each district of the Pacific coast for each year of the decade, the coast total for each year being given in a tabulated recapitulation. In this recapitulation it is shown that there has been a gradual but steady increase in the registered fleet of the coast during the ten years in question. In 1880, for instance, the registered sailing vessels numbered 752; in 1883 there were 812; in 1886 there were 829, and in 1889 there were 841. The tonnage of

the registered sailing vessels in 1880 was 148,400; in 1882 it was 167,351; in 1887 it was 189,702, and in 1889 it was 248,430. In 1880 the registered steamers numbered 305 with a tonnage of 110,415; in 1884 the registered steamers numbered 384 with a tonnage of 146,562; in 1887, 426 steamers were registered with a tonnage of 160,140; and in 1889, 517 steamers were registered with a tonnage of 180,496. On the other hand, the registered barge fleet shows a very decided drop in 1883, the number in 1882 being 68 with a tonnage of 12,980, while in 1883 it fell to 8 with a tonnage of 5,973, and there continued until after 1888, the reason for this diminution being that after 1882 the registration of unrigged craft was no longer compulsory. This fact, too, explains the discrepancy between the total for the 1889 fleet as reported by the Commissioner of Navigation and that reported by the census. The Commissioner of Navigation gives 9 barges with a tonnage of 6,078 as the registered fleet of unrigged, while the census gives 489 unrigged with a tonnage of 63,356 as the registered and unregistered fleet of unrigged. Leaving out the unrigged, the Commissioner of Navigation reports on 1,358 registered steamers and sailing vessels, while the census reports on 1,353 vessels.

Tables 30 to 37, inclusive, show the average tonnage of all steamers, sailing vessels, and unrigged craft registered in each district for the decade, the annual average number of vessels registered, and the fluctuations from that annual average for each district and for each year. The following summary presents the average tonnage per vessel of each year's registered fleet at a glance:

TABLE R.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	1,124	270,801.75	240.93
1881.....	1,128	284,425.00	252.15
1882.....	1,166	300,766.83	257.95
1883.....	1,169	326,944.94	279.68
1884.....	1,202	334,188.81	278.03
1885.....	1,250	360,110.56	288.09
1886.....	1,253	347,059.73	276.98
1887.....	1,217	355,814.58	292.37
1888.....	1,293	390,173.18	308.72
1889.....	1,367	435,004.14	318.22

The gradual increase in the average tonnage of the registered fleet is shown in the preceding tables; and the two summaries following show whether this increase is on the part of steamers or of the sailing vessels:

TABLE S.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	305	110,414.61	362.02
1881.....	310	112,434.54	362.69
1882.....	326	120,431.94	369.43
1883.....	349	134,435.75	385.20
1884.....	384	146,561.82	381.67
1885.....	402	153,808.04	382.61
1886.....	416	156,320.30	375.77
1887.....	426	160,139.75	375.91
1888.....	459	168,268.58	366.60
1889.....	517	180,496.04	349.12

STATISTICS OF TRANSPORTATION.

TABLE T.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	752	148,400.41	197.34
1881.....	748	158,940.98	212.40
1882.....	772	167,351.44	216.78
1883.....	812	186,536.21	229.72
1884.....	818	187,626.99	229.37
1885.....	840	200,329.54	238.49
1886.....	829	181,766.45	222.88
1887.....	783	189,701.85	242.28
1888.....	826	224,931.62	272.31
1889.....	841	248,429.78	295.40

From these two summaries it is demonstrated that the increase of tonnage has been on the part of the sailing vessels. In 1880 the average tonnage of the registered fleet of steamers was 362.02, and while in 1883 it increased to 385.20, it decreased continuously from that time until in 1889 it was 349.12. On the other hand, while the average annual tonnage of the Pacific coast registered sailing vessels in 1880 was 197.34, it rose steadily from that to an average of 295.40 in 1889.

The numbers given in Tables S and T will not uniformly balance with the numbers for all vessels in Table R, since a separate statement for unrigged craft was not given for each year.

SHIPBUILDING RECORDS.

In Table 38 are set down the records of shipbuilding in the customs districts of the Pacific coast during the ten years 1880-1889. The following summary shows the number, tonnage, and average tonnage of the steamers and sailing vessels built during each year of the decade:

TABLE U.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF THE STEAMERS AND SAILING VESSELS BUILT ON THE PACIFIC COAST IN THE TEN YEARS 1880-1889.

YEARS.	STEAMERS.			SAILING VESSELS.		
	Number.	Tonnage.	Average tonnage.	Number.	Tonnage.	Average tonnage.
Total for 10 years.....	369	68,351.18	185.23	390	58,353.33	149.62
1880.....	25	7,642.61	305.70	15	937.44	62.50
1881.....	21	3,010.41	143.35	35	7,382.15	210.92
1882.....	28	6,727.35	240.26	46	9,043.17	196.59
1883.....	34	4,019.17	118.21	56	11,547.84	206.21
1884.....	42	5,865.90	139.67	42	4,746.37	113.01
1885.....	38	8,867.37	233.35	35	2,133.91	60.97
1886.....	23	3,023.31	131.45	35	2,890.61	82.59
1887.....	32	3,750.45	117.20	39	5,355.79	137.33
1888.....	55	12,710.22	231.09	48	9,140.87	190.43
1889.....	71	12,734.30	179.36	39	5,175.18	132.70

Table 39, which is the last of the tables of comparative statistics, deals only with the steamers built in each of the ten years, and considers them under the various methods of propulsion; that is, whether propeller, side-wheel, or stern-wheel. From this table it is seen that of 369 steamers with a tonnage of 68,351.18, 241 were propellers with a tonnage of 31,728.75, 37 were side-wheelers with a tonnage of 16,133.22, and 91 were stern-wheelers with a tonnage of 20,489.21. The records of annual construction of these three classes of steamers are plainly exhibited in the summary on the following page.

TRANSPORTATION ON THE PACIFIC COAST.

TABLE V.—SUMMARY SHOWING THE NUMBER AND TONNAGE OF PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS BUILT ON THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

YEARS.	METHODS OF PROPULSION.					
	Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for 10 years.....	241	31,728.75	37	16,133.22	91	20,489.21
1880.....	10	402.48	9	5,804.35	6	1,435.78
1881.....	10	887.12	4	325.06	7	1,798.23
1882.....	15	3,915.90	3	253.10	10	2,558.35
1883.....	27	3,097.03			7	922.14
1884.....	24	1,428.00	6	2,583.37	12	1,854.02
1885.....	22	3,219.04	5	2,998.51	11	2,649.82
1886.....	13	1,145.71			10	1,877.60
1887.....	26	2,720.48	2	347.62	4	682.85
1888.....	43	7,749.66	3	2,427.60	9	2,532.96
1889.....	51	7,163.33	5	1,393.61	15	4,177.36

CONGRESSIONAL APPROPRIATIONS.

In the last of the tables (Table 40) entitled "Congressional appropriations", it will be seen that the earliest appropriation made by the government for the improvement of the rivers and harbors of the Pacific coast was in 1852, when \$111,000 were set aside for the survey and improvement of San Diego river and harbor. Since that time nearly a hundred localities have been improved under congressional aid, the sums appropriated up to 1890 amounting to \$9,964,800. Of this amount \$2,315,000 were appropriated up to and including 1879, \$5,527,200 were included in the decade marked by 1880-1889, the remaining \$2,122,600 having been appropriated by the act of September 19, 1890.

Of the total amount, \$111,500 were appropriated for Washington, of which amount \$78,500 were appropriated between 1880 and 1889 and the remaining \$33,000 in 1890.

The appropriations for Oregon amounted to \$5,765,050, of which amount \$1,107,000 were appropriated up to and including 1879; \$3,164,950 in the ten years 1880-1889, and \$1,493,100 by the act of September 19, 1890.

The appropriations for California amounted to \$4,038,250, of which amount \$1,158,000 were appropriated up to and including 1879; \$2,283,750 were appropriated from 1880 to 1889, inclusive, and \$596,500 by the act of September 19, 1890.

Between the sum of these amounts, however, and the \$9,964,800 given as the total appropriations for the Pacific coast there is a difference of \$50,000, that sum being a general appropriation for which there was no indication of special locality, but which was made for such comprehensive purposes as general expenses and surveys.

Charged to the states the total appropriations are set down in the following summary:

TABLE W.—SUMMARY SHOWING THE AMOUNTS APPROPRIATED BY CONGRESS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS AND RIVERS OF THE PACIFIC COAST, GIVEN BY PERIODS AND ALLOTTED TO THE RESPECTIVE STATES FOR WHICH THE APPROPRIATIONS WERE MADE.

STATES.	Date of earliest appropriations.	Total appropriations up to date.	Appropriations up to and including 1879.	Appropriations from 1880-1889, inclusive.	Appropriations by act of Congress September 19, 1890.
Total		\$9,964,800	\$2,315,000	\$5,527,200	\$2,122,600
Washington.....	1880	111,500		78,500	33,000
Oregon.....	1866	5,765,050	1,107,000	3,164,950	1,493,100
California.....	1852	4,038,250	1,158,000	2,283,750	596,500
General expenses all states.	1866	50,000	50,000		

STATISTICS OF TRANSPORTATION.

LANDINGS AND DISTANCES.

In accordance with the plan pursued when treating of the other branches of water transportation, this text may be brought to a close by giving a list of the principal trading points on the Pacific coast, with the distances from the principal ports.

DISTANCES BETWEEN OLYMPIA, WASHINGTON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING SOUTH TO SAN DIEGO, CALIFORNIA.

	MILES.		MILES.		MILES.
Tacoma, Washington	40	Bay Center, Washington	335	Crescent, California	637
Seattle, Washington	56	Oysterville, Washington	340	Arcata, California	713
Skokomish, Washington	134	Ilwaco, Washington	351	Eureka, California	708
Freeport, Washington	54	Cape Disappointment, Washington	346	Cape Mendocino, California	724
Dwamish, Washington	60	Knappton, Washington	360	Shelter Cove, California	756
Port Madison, Washington	60	Cathlamet, Washington	383	Westport, California	783
Snohomish, Washington	96	Kalama, Washington	416	Mendocino, California	805
Port Townsend, Washington	94	Vancouver, Washington	452	Navarro, California	816
Utsaladdy, Washington	105	Cascades, Washington	484	Point Arena, California	832
Stillaguamish, Washington	110	Salem, Oregon	516	Tomales, California	897
Laconner, Washington	115	Oregon city, Oregon	464	San Francisco, California	945
Fidalgo, Washington	130	Portland, Oregon	456	Mare island, California	967
Mount Vernon, Washington	125	St. Helen, Oregon	428	Oakland, California	950
Whatcom, Washington	145	Clifton, Oregon	380	Santa Cruz, California	999
Friday harbor, Washington	130	Knappa, Oregon	366	Castroville, California	1,010
New Dungeness, Washington	120	Astoria, Oregon	360	Monterey, California	1,010
Port Angeles, Washington	135	Skipanon, Oregon	356	Point Sur, California	1,031
Pysht, Washington	170	Port Klatsop, Oregon	357	San Simeon, California	1,096
Neah bay, Washington	195	Nehalem bay, Oregon	384	Cayucos, California	1,116
Cape Flattery, Washington	209	Tillamook head, Oregon	367	Port Harford, California	1,129
Quinault, Washington	276	Netarts bay, Oregon	400	Point Sal, California	1,145
Port Grenville, Washington	278	Cape Lookout, Oregon	405	Santa Barbara, California	1,223
Humtulpis, Washington	313	Yaquina, Oregon	454	San Buenaventura, California	1,253
Grays harbor, Washington	308	Oysterville, Oregon	454	Hueneme, California	1,258
Hoquiam, Washington	317	Florence, Oregon	492	Santa Monica, California	1,302
Montesano, Washington	335	Empire city, Oregon	535	Wilmington, California	1,323
Chehalis, Washington	303	Coos city, Oregon	546	San Pedro, California	1,320
Cosmopolis, Washington	324	Cape Blanco, Oregon	562	San Juan Capistrano, California	1,356
Bay city, Washington	310	Port Orford, Oregon	573	Delmar, California	1,393
Petersons point, Washington	308	Ellensburg, Oregon	594	San Diego, California	1,420
Willapa, Washington	340	Chetco, Oregon	616		

DISTANCES BETWEEN SAN FRANCISCO, CALIFORNIA, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING SOUTH TO SAN DIEGO, CALIFORNIA.

	MILES.		MILES.		MILES.
Mare island, California	23	Cayucos, California	204	Santa Monica, California	389
Oakland, California	5	Port Harford, California	216	Wilmington, California	410
Santa Cruz, California	80	Point Sal, California	232	San Pedro, California	407
Castroville, California	97	Santa Barbara, California	310	San Juan Capistrano, California	443
Monterey, California	97	San Buenaventura, California	340	Delmar, California	481
Point Sur, California	119	Hueneme, California	345	San Diego, California	508
San Simeon, California	184				

TRANSPORTATION ON THE PACIFIC COAST.

DISTANCES BETWEEN SAN FRANCISCO, CALIFORNIA, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING NORTH TO OLYMPIA, WASHINGTON.

MILES.		MILES.		MILES.	
Drake's bay, California.....	25	Port Klatsop, Oregon.....	589	Grays harbor, Washington.....	643
Tomales, California.....	54	Skipanon, Oregon.....	609	Humtulsips, Washington.....	648
Point Arena, California.....	113	Astoria, Oregon.....	613	Port Grenville, Washington.....	667
Navarro, California.....	130	Knappa, Oregon.....	619	Quinault, Washington.....	670
Mendocino, California.....	140	Clifton, Oregon.....	633	Cape Flattery, Washington.....	745
Westport, California.....	162	St. Helen, Oregon.....	681	Neah bay, Washington.....	750
Shelter Cove, California.....	189	Portland, Oregon.....	709	Pysht, Washington.....	775
Cape Mendocino, California.....	221	Oregon city, Oregon.....	711	Port Angeles, Washington.....	810
Eureka or Humboldt bay, California.....	248	Salem, Oregon.....	769	New Dungeness, Washington.....	825
Arcata, California.....	254	Cascades, Washington.....	737	Friday harbor, Washington.....	845
Trinidad bay, California.....	264	Vancouver, Washington.....	705	Whatcom, Washington.....	870
Crescent, California.....	308	Kalama, Washington.....	669	Mount Vernon, Washington.....	865
Chetco, Oregon.....	329	Cathlamet, Washington.....	636	Fidalgo, Washington.....	855
Ellensburg, Oregon.....	351	Knappton, Washington.....	613	Lacconner, Washington.....	855
Port Orford, Oregon.....	373	Cape Disappointment, Washington.....	599	Stillaguamish, Washington.....	860
Cape Blanco, Oregon.....	383	Ilwaco, Washington.....	605	Utsaladdy, Washington.....	857
Coos city, Oregon.....	427	Oysterville, Washington.....	637	Port Townsend, Washington.....	845
Empire city, Oregon.....	416	Bay Center, Washington.....	632	Snohomish, Washington.....	895
Florence, Oregon.....	464	Willapa, Washington.....	637	Port Madison, Washington.....	880
Oysterville, Oregon.....	508	Petersons point, Washington.....	643	Dwamish, Washington.....	895
Yaquina, Oregon.....	508	Bay city, Washington.....	645	Freeport, Washington.....	888
Cape Lookout, Oregon.....	540	Cosmopolis, Washington.....	659	Skokomish, Washington.....	905
Netarts bay, Oregon.....	545	Chehalis, Washington.....	637	Seattle, Washington.....	890
Tillamook head, Oregon.....	578	Montesano, Washington.....	670	Tacoma, Washington.....	915
Nehalem bay, Oregon.....	562	Hoquiam, Washington.....	651	Olympia, Washington.....	945

DISTANCES BETWEEN PORTLAND, OREGON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING NORTH TO OLYMPIA, WASHINGTON.

MILES.		MILES.		MILES.	
Oregon city, Oregon.....	12	Chehalis, Washington.....	148	Mount Vernon, Washington.....	376
Salem, Oregon.....	60	Montesano, Washington.....	181	Fidalgo, Washington.....	366
Cascades, Washington.....	52	Hoquiam, Washington.....	162	Lacconner, Washington.....	366
Vancouver, Washington.....	18	Grays harbor, Washington.....	154	Stillaguamish, Washington.....	371
Kalama, Washington.....	40	Humtulsips, Washington.....	159	Utsaladdy, Washington.....	368
Cathlamet, Washington.....	73	Port Grenville, Washington.....	178	Port Townsend, Washington.....	356
Knappton, Washington.....	96	Quinault, Washington.....	181	Snohomish, Washington.....	406
Cape Disappointment, Washington.....	110	Cape Flattery, Washington.....	256	Port Madison, Washington.....	391
Ilwaco, Washington.....	105	Neah bay, Washington.....	261	Dwamish, Washington.....	406
Oysterville, Washington.....	148	Pysht, Washington.....	286	Freeport, Washington.....	399
Bay Center, Washington.....	143	Port Angeles, Washington.....	321	Skokomish, Washington.....	416
Willapa, Washington.....	148	New Dungeness, Washington.....	336	Seattle, Washington.....	401
Petersons point, Washington.....	154	Friday harbor, Washington.....	356	Tacoma, Washington.....	426
Bay city, Washington.....	156	Whatcom, Washington.....	381	Olympia, Washington.....	456
Cosmopolis, Washington.....	170				

DISTANCES BETWEEN PORTLAND, OREGON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING SOUTH TO SAN DIEGO, CALIFORNIA.

MILES.		MILES.		MILES.	
St. Helen, Oregon.....	28	Ellensburg, Oregon.....	357	Castroville, California.....	774
Clifton, Oregon.....	76	Chetco, Oregon.....	379	Monterey, California.....	774
Knappa, Oregon.....	82	Crescent, California.....	400	Point Sur, California.....	795
Astoria, Oregon.....	96	Arcata, California.....	476	San Simeon, California.....	860
Skipanon, Oregon.....	100	Eureka, California.....	471	Cayucos, California.....	880
Port Klatsop, Oregon.....	120	Cape Mendocino, California.....	487	Port Harford, California.....	893
Nehalem bay, Oregon.....	147	Shelter Cove, California.....	519	Point Sal, California.....	909
Tillamook head, Oregon.....	130	Westport, California.....	546	Santa Barbara, California.....	1,087
Netarts bay, Oregon.....	163	Mendocino, California.....	568	San Buenaventura, California.....	1,117
Cape Lookout, Oregon.....	168	Navarro, California.....	579	Hueneme, California.....	1,122
Yaquina, Oregon.....	217	Point Arena, California.....	595	Santa Monica, California.....	1,166
Oysterville, Oregon.....	217	Tomales, California.....	660	Wilmington, California.....	1,187
Florence, Oregon.....	255	San Francisco, California.....	709	San Pedro, California.....	1,184
Empire city, Oregon.....	298	Mare island, California.....	731	San Juan Capistrano, California.....	1,220
Coos city, Oregon.....	309	Oakland, California.....	714	Delmar, California.....	1,257
Cape Blanco, Oregon.....	325	Santa Cruz, California.....	763	San Diego, California.....	1,284
Port Orford, Oregon.....	336				

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF OVER FIVE TONS BURDEN REGISTERED OR OWNED IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST CREDITED TO THE RESPECTIVE DISTRICTS, WITH TOTALS FOR EACH STATE.

CUSTOMS DISTRICTS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valua-tion.
Total	1,842	441,939	\$23,067,370	531	170,503	\$15,526,455	822	208,080	\$6,715,570	489	63,356	\$825,345
California	1,177	304,886	16,148,080	251	106,667	9,792,905	697	162,946	5,753,975	229	35,273	601,200
San Diego	57	3,227	112,450	8	800	62,500	21	461	36,975	28	1,966	12,975
Wilmington	56	5,562	287,900	10	933	188,500	13	694	37,400	33	3,935	62,000
San Francisco	1,018	289,750	15,400,205	223	104,140	9,459,405	649	158,519	5,434,100	146	27,082	506,700
Humboldt	46	6,347	347,525	10	785	82,500	14	3,272	245,500	22	2,290	19,525
Oregon	366	68,963	4,733,365	165	50,628	4,492,200	43	2,776	97,065	158	15,559	144,100
Southern Oregon	109	3,887	99,290	15	771	70,600	1	90	8,000	93	3,026	20,690
Yaquina	16	2,321	287,000	13	2,281	287,400				3	40	200
Oregon	105	5,353	347,990	41	3,172	284,100	36	690	50,080	28	1,491	13,810
Willamette	136	37,402	3,998,485	96	44,404	3,850,100	6	1,996	38,985	34	11,002	109,400
Washington—Puget sound	299	68,090	2,185,925	115	13,208	1,241,350	82	42,358	864,530	102	12,524	80,045

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 2.—OCCUPATION AND VALUATION BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF OVER FIVE TONS BURDEN, DIVIDED INTO CLASSES INDICATIVE OF OCCUPATION.

CUSTOMS DISTRICTS.	TOTAL EQUIPMENT.				STEAMERS.									
					Passenger and freight.				Ferry.				Fish.	
	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.
Total	1,842	441,939	\$23,067,370	\$52.20	354	129,491	\$12,660,755	\$97.77	38	24,630	\$979,300	\$39.76	24	4,343
California	1,177	304,886	16,148,080	52.96	147	73,833	7,657,705	103.72	20	22,551	816,000	36.18	14	3,960
San Diego	57	3,227	112,450	34.85					3	488	31,500	64.55		
Wilmington	56	5,502	287,900	51.76	5	756	149,500	197.75						
San Francisco	1,018	289,750	15,400,205	53.15	136	72,626	7,479,705	102.99	17	22,063	784,500	35.56	14	3,960
Humboldt	46	6,347	347,525	54.75	6	451	28,500	63.19						
Oregon	366	68,063	4,733,365	68.64	114	45,016	4,027,200	89.46	16	1,783	118,300	66.35	9	370
Southern Oregon	109	3,887	99,290	25.54	12	651	48,300	74.19	1	20	1,200	60.00		
Yaquina	16	2,321	287,600	123.91	7	1,077	125,000	116.06	1	16	900	56.25	1	106
Oregon	105	5,353	347,990	65.01	33	2,897	247,600	85.47					5	185
Willamette	136	57,402	3,998,485	69.66	62	40,391	3,606,300	89.28	14	1,747	116,200	66.51	3	79
Washington—Puget sound ..	299	68,000	2,185,925	32.10	93	10,642	975,850	91.70	2	296	45,000	152.03	1	13

CUSTOMS DISTRICTS.	STEAMERS—continued.													
	Fish—Continued.		Harbor tugs.				Yachts.				No traffic report.			
	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.
Total	\$411,500	\$94.75	70	6,109	\$1,120,800	\$183.47	3	63	\$6,500	\$103.17	42	5,867	\$347,600	\$59.25
California	341,000	86.11	52	4,279	833,500	194.79	1	18	2,500	138.89	17	2,026	142,200	70.19
San Diego			4	294	28,500	96.94	1	18	2,500	138.89				
Wilmington			1	89	22,000	247.19					4	88	17,000	193.18
San Francisco	341,000	86.11	44	3,626	732,000	201.88					12	1,874	122,200	65.21
Humboldt			3	270	51,000	188.89					1	64	3,000	46.88
Oregon	69,000	186.40	9	484	103,300	223.76					17	2,975	169,400	56.94
Southern Oregon			2	100	21,100	211.00								
Yaquina	25,000	235.85	2	126	44,500	353.17					2	956	92,000	96.23
Oregon	24,000	129.73	1	14	2,000	142.86					2	76	10,500	138.16
Willamette	20,000	253.16	4	244	40,700	166.80					13	1,943	66,900	34.43
Washington—Puget sound ..	1,500	115.38	9	1,346	179,000	132.99	2	45	4,000	88.89	8	866	36,000	41.57

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 2.—OCCUPATION AND VALUATION BY CLASSES—Continued.

CUSTOMS DISTRICTS.	SAILING VESSELS.											
	Freight.				Fish.				Pilot boats.			
	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.
Total	647	194,478	\$6,112,340	\$31.43	60	6,372	\$280,955	\$44.09	9	418	\$49,700	\$118.90
California	577	150,825	5,236,900	34.72	42	5,897	242,525	41.13	6	258	30,000	116.28
San Diego	7	222	20,350	91.67	2	31	2,625	84.68	1	20	3,000	150.00
Wilmington	8	588	27,400	46.60					1	8	2,500	312.50
San Francisco	549	146,924	4,948,150	33.68	40	5,866	239,900	40.90	4	230	24,500	106.52
Humboldt	13	3,091	241,000	77.97								
Oregon	18	2,022	53,885	26.40	10	137	12,730	92.92	2	141	19,000	134.75
Southern Oregon	1	90	8,000	88.89								
Yaquina												
Oregon	14	220	10,350	47.05	10	137	12,730	92.92	2	141	19,000	134.75
Willamette	3	1,712	35,035	20.46								
Washington—Puget sound ..	52	41,631	822,055	19.75	8	338	25,700	76.04	1	19	700	36.84

CUSTOMS DISTRICTS.	SAILING VESSELS—continued.								UNRIGGED CRAFT.			
	Yachts.				No traffic report.				Freight.			
	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.	Number.	Gross tonnage.	Valuation.	Value per gross ton.
Total	25	612	\$69,300	\$113.24	81	6,200	\$203,275	\$32.79	489	63,356	\$825,345	\$13.03
California	24	604	68,800	113.91	48	5,362	175,750	32.78	229	35,273	601,200	17.04
San Diego	7	101	8,500	84.16	4	87	2,500	28.74	28	1,966	12,975	6.60
Wilmington	4	98	7,500	76.53					33	3,935	62,000	15.76
San Francisco	13	405	52,800	130.37	43	5,094	168,750	33.13	146	27,082	506,700	18.71
Humboldt					1	181	4,500	24.86	22	2,290	19,525	8.53
Oregon					13	476	11,950	25.11	158	15,559	144,100	9.26
Southern Oregon									93	3,026	20,690	6.84
Yaquina									3	40	200	5.00
Oregon					10	192	8,000	41.67	28	1,491	13,810	9.26
Willamette					3	284	3,950	13.91	34	11,002	109,400	9.94
Washington—Puget sound ..	1	8	500	62.50	20	362	15,575	43.02	102	12,524	80,045	6.39

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP, AND GROUPED FOR EACH CLASS OF OCCUPATION.

ALL STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total steam and sail	1,353	378,583	904	200,705	27	4,002	332	173,876	\$9,001,115	\$343,500	\$12,897,410
Total steam	531	170,503	252	34,114	25	3,368	254	133,021	3,147,650	324,500	12,054,305
Total sail	822	208,080	742	166,591	2	634	78	40,855	5,853,465	19,000	843,105

STEAMERS.

PASSENGER AND FREIGHT.

Total	354	129,491	179	27,140	18	2,825	157	99,526	2,417,850	246,500	9,906,405
California	147	73,833	57	13,552	12	2,510	78	57,771	1,302,500	193,000	6,162,205
Wilmington	5	756					5	756			149,500
San Francisco	136	72,026	53	13,288	12	2,510	71	56,828	1,285,000	193,000	6,001,705
Humboldt	6	451	4	264			2	187	17,500		11,000
Oregon	114	45,016	53	7,537	5	236	56	37,243	592,700	33,500	3,401,000
Southern Oregon	12	651	8	365	3	173	1	113	21,800	22,500	4,000
Yaquina	7	1,077	7	1,077					125,000		
Oregon	33	2,897	22	1,962	2	63	9	872	167,900	11,000	69,000
Willamette	62	40,331	16	4,133			46	36,258	278,300		3,328,000
Washington—Puget sound	93	10,642	69	6,051	1	70	23	4,512	522,650	20,000	433,200

FERRY.

Total	38	24,630	7	202	2	216	29	24,212	28,600	13,000	937,700
California	20	22,551					20	22,551			816,000
San Diego	3	488					3	488			31,500
San Francisco	17	22,063					17	22,063			784,500
Oregon	16	1,783	6	179	2	216	8	1,388	23,600	13,000	81,700
Southern Oregon	1	20	1	20					1,200		
Yaquina	1	16	1	16					900		
Willamette	14	1,747	4	143	2	216	8	1,388	21,500	13,000	81,700
Washington—Puget sound	2	296	1	23			1	273	5,000		40,000

FISH.

Total	24	4,343	5	626	2	149	17	3,568	45,000	24,000	342,500
California—San Francisco	14	3,960	1	516	1	91	12	3,853	20,000	18,000	303,000
Oregon	9	370	4	110	1	58	4	202	25,000	6,000	38,000
Yaquina	1	106					1	106			25,000
Oregon	5	185	1	81	1	58	3	96	5,000	6,000	13,000
Willamette	3	79	3	79					20,000		
Washington—Puget sound	1	13					1	13			1,500

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—Continued.

STEAMERS—Continued.

HARBOR TUGS.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	70	6,109	33	2,189	3	178	34	3,742	\$440,800	\$41,000	\$639,000
California	52	4,279	24	1,739	2	55	26	2,485	396,000	16,000	421,500
San Diego	4	294	2	29			2	265	8,500		20,000
Wilmington	1	89					1	89			22,000
San Francisco	44	3,626	19	1,440	2	55	23	2,131	336,500	16,000	379,500
Humboldt	3	270	3	270					51,000		
Oregon	9	484	6	174			3	310	30,300		78,000
Southern Oregon	2	100	2	100					21,100		
Yaquina	2	126	1	34			1	92	4,500		40,000
Oregon	1	14	1	14					2,000		
Willamette	4	244	2	26			2	218	2,700		38,000
Washington—Puget sound	9	1,346	3	276	1	123	5	947	14,500	25,000	139,500

YACHTS.

Total	3	63	2	45			1	18	4,000		2,500
California—San Diego	1	18					1	18			2,500
Washington—Puget sound	2	45	2	45					4,000		

NO TRAFFIC REPORT.

Total	42	5,867	26	3,912			16	1,955	211,400		136,200
California	17	2,026	8	1,401			9	625	43,500		98,700
Wilmington	4	88	2	48			2	40	7,500		9,500
San Francisco	12	1,874	5	1,289			7	585	33,000		89,200
Humboldt	1	64	1	64					3,000		
Oregon	17	2,975	13	2,053			4	917	138,400		31,000
Yaquina	2	956	1	883			1	73	80,000		12,000
Oregon	2	76	2	76					10,500		
Willamette	13	1,943	10	1,099			3	844	47,900		19,000
Washington—Puget sound	8	866	5	453			3	413	29,500		6,500

SAILING VESSELS.

FREIGHT.

Total	647	194,478	587	157,048	1	594	59	36,836	5,369,835	15,000	727,505
California	577	150,825	544	141,871	1	594	32	8,360	4,951,900	15,000	270,000
San Diego	7	222	5	80			2	142	5,350		15,000
Wilmington	8	588	8	588					27,400		
San Francisco	549	146,924	518	136,112	1	594	30	8,218	4,678,150	15,000	255,000
Humboldt	13	3,091	13	3,091					241,000		
Oregon	18	2,022	18	2,022					53,385		
Southern Oregon	1	90	1	90					8,000		
Oregon	14	220	14	220					10,350		
Willamette	3	1,712	3	1,712					35,035		
Washington—Puget sound	52	41,631	25	13,155			27	28,476	364,550		457,505

TRANSPORTATION ON THE PACIFIC COAST.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—Continued.

SAILING VESSELS—Continued.

FISH.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	60	6,372	46	4,084	1	40	13	2,248	\$199,555	\$4,000	\$77,400
California	42	5,897	30	3,668			12	2,234	166,925		75,600
San Diego	2	31	2	31					2,625		
San Francisco	40	5,866	28	3,632			12	2,234	164,300		75,600
Oregon—Oregon	10	137	10	137					12,730		
Washington—Puget sound	8	338	6	284	1	40	1	14	19,900	4,000	1,800

PILOT BOATS.

Total	9	418	8	354			1	64	39,700		10,000
California	6	258	6	258					30,000		
San Diego	1	20	1	20					3,000		
Wilmington	1	8	1	8					2,500		
San Francisco	4	230	4	230					24,500		
Oregon—Oregon	2	141	1	77			1	64	9,000		10,000
Washington—Puget sound	1	19	1	19					700		

YACHTS.

Total	25	612	25	612					69,300		
California	24	604	24	604					68,800		
San Diego	7	101	7	101					8,500		
Wilmington	4	98	4	98					7,500		
San Francisco	13	405	13	405					52,800		
Washington—Puget sound	1	8	1	8					500		

NO TRAFFIC REPORT.

Total	81	6,200	76	4,493			5	1,707	175,075		28,200
California	48	5,362	43	3,655			5	1,707	147,550		28,200
San Diego	4	87	4	87					2,500		
San Francisco	43	5,094	38	3,387			5	1,707	140,550		28,200
Humboldt	1	181	1	181					4,500		
Oregon	13	476	13	476					11,950		
Oregon	10	192	10	192					8,000		
Willamette	3	284	3	284					3,950		
Washington—Puget sound	20	362	20	362					15,575		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP, AND GROUPED BY DISTRICTS.

ALL STEAMERS AND SAILING VESSELS.

CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total steam and sail.....	1,353	378,583	994	200,705	27	4,002	332	173,876	\$9,001,115	\$343,500	\$12,897,410
Total steam.....	531	170,503	252	34,114	25	3,308	254	133,021	3,147,650	324,500	12,054,305
Total sail.....	822	208,080	742	166,591	2	634	78	40,855	5,853,465	19,000	843,105

STEAMERS.

Total for California.....	251	106,667	90	17,208	15	2,656	146	86,803	1,762,000	227,000	7,803,905
San Diego, California.....	8	800	2	29			6	771	8,500		54,000
Ferry.....	3	488					3	488			31,500
Harbor tugs.....	4	204	2	29			2	265	8,500		20,000
Yachts.....	1	18					1	18			2,500
Wilmington, California.....	10	933	2	48			8	885	7,500		181,000
Passenger and freight.....	5	756					5	756			149,500
Harbor tugs.....	1	89					1	89			22,000
No traffic report.....	4	88	2	48			2	40	7,500		9,500
San Francisco, California.....	223	104,149	78	16,533	15	2,656	130	84,960	1,674,500	227,000	7,557,905
Passenger and freight.....	136	72,026	53	13,288	12	2,510	71	56,828	1,285,000	193,000	6,001,705
Ferry.....	17	22,063					17	22,063			784,500
Fish.....	14	3,960	1	516	1	91	12	3,353	20,000	18,000	303,000
Harbor tugs.....	44	3,026	19	1,440	2	55	23	2,131	336,500	16,000	379,500
No traffic report.....	12	1,874	5	1,289			7	585	33,000		89,200
Humboldt, California.....	10	785	8	598			2	187	71,500		11,000
Passenger and freight.....	6	451	4	264			2	187	17,500		11,000
Harbor tugs.....	3	270	3	270					51,000		
No traffic report.....	1	64	1	64					3,000		
Total for Oregon.....	165	50,628	82	10,058	8	510	75	40,060	810,000	52,500	3,629,700
Southern Oregon, Oregon.....	15	771	11	485	3	173	1	113	44,100	22,500	4,000
Passenger and freight.....	12	651	8	365	3	173	1	113	21,800	22,500	4,000
Ferry.....	1	20	1	20					1,200		
Harbor tugs.....	2	100	2	100					21,100		
Yaquina, Oregon.....	13	2,281	10	2,010			3	271	210,400		77,000
Passenger and freight.....	7	1,077	7	1,077					125,000		
Ferry.....	1	16	1	16					900		
Fish.....	1	106					1	106			25,000
Harbor tugs.....	2	126	1	34			1	92	4,500		40,000
No traffic report.....	2	956	1	833			1	73	80,000		12,000
Oregon, Oregon.....	41	3,172	26	2,083	3	121	12	968	185,100	17,000	82,000
Passenger and freight.....	33	2,897	22	1,962	2	63	9	872	167,600	11,000	69,000
Fish.....	5	185	1	31	1	58	3	96	5,000	6,000	13,000
Harbor tugs.....	1	14	1	14					2,000		
No traffic report.....	2	76	2	76					10,500		
Willamette, Oregon.....	96	44,404	35	5,480	2	216	59	38,708	370,400	13,000	3,466,706
Passenger and freight.....	62	40,391	16	4,133			46	36,258	278,300		3,328,000
Ferry.....	14	1,747	4	143	2	216	8	1,388	21,500	13,000	81,700
Fish.....	3	79	3	79					26,000		
Harbor tugs.....	4	244	2	26			2	218	2,700		38,000
No traffic report.....	13	1,943	10	1,099			3	844	47,900		19,000

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY LOCALITIES—Continued.

STEAMERS—Continued.

CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Jointstock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Puget sound, Washington	115	13,208	80	6,849	2	202	33	6,158	\$575,650	\$45,000	\$620,700
Passenger and freight.....	93	10,642	69	6,051	1	79	23	4,512	522,650	20,000	433,200
Ferry.....	2	296	1	23			1	273	5,000		40,000
Fish.....	1	13					1	13			1,500
Harbor tugs.....	9	1,346	3	276	1	123	5	947	14,500	25,000	139,500
Yachts.....	2	45	2	45					4,000		
No traffic report.....	8	866	5	453			3	413	29,500		6,500

SAILING VESSELS.

Total for California.....	697	162,946	647	150,051	1	594	49	12,301	5,365,175	15,000	373,800
San Diego, California.....	21	461	19	319			2	142	21,975		15,000
Freight.....	7	222	5	80			2	142	5,350		15,000
Fish.....	2	31	2	31					2,025		
Pilot boats.....	1	20	1	20					3,000		
Yachts.....	7	101	7	101					8,500		
No traffic report.....	4	87	4	87					2,500		
Wilmington, California.....	13	694	13	694					37,400		
Freight.....	8	588	8	588					27,400		
Pilot boats.....	1	8	1	8					2,500		
Yachts.....	4	98	4	98					7,500		
San Francisco, California.....	649	158,519	601	145,766	1	594	47	12,159	5,060,300	15,000	358,800
Freight.....	549	146,924	518	138,112	1	594	30	8,218	4,673,150	15,000	255,000
Fish.....	40	5,366	28	3,632			12	2,234	164,300		75,600
Pilot boats.....	4	230	4	230					24,500		
Yachts.....	13	405	13	405					52,800		
No traffic report.....	43	5,094	33	3,387			5	1,707	140,550		28,200
Humboldt, California.....	14	3,272	14	3,272					245,500		
Freight.....	13	3,091	13	3,091					241,000		
No traffic report.....	1	181	1	181					4,500		
Total for Oregon.....	43	2,776	42	2,712			1	64	87,065		10,000
Southern Oregon, Oregon:											
Freight.....	1	90	1	90					8,000		
Oregon, Oregon.....	36	690	35	626			1	64	40,080		10,000
Freight.....	14	220	14	220					10,350		
Fish.....	10	137	10	137					12,730		
Pilot boats.....	2	141	1	77			1	64	9,000		10,000
No traffic report.....	10	192	10	192					8,000		
Willamette, Oregon.....	6	1,996	6	1,996					38,985		
Freight.....	3	1,712	3	1,712					35,035		
No traffic report.....	3	284	3	284					3,950		
Puget sound, Washington.....	82	42,358	53	13,823	1	40	28	38,490	401,225	4,000	459,305
Freight.....	52	41,631	25	13,155			27	28,476	364,550		457,505
Fish.....	8	338	6	284	1	40	1	14	19,900	4,000	1,800
Pilot boats.....	1	19	1	19					700		
Yachts.....	1	8	1	8					500		
No traffic report.....	20	362	20	362					15,575		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION, AND GROUPED FOR EACH CLASS OF OCCUPATION.

ALL STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Compos- ite.	Iron and steel.
			Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.				
Total steam and sail.....	1,353	378,583	1,326	323,076	2	1,298	25	49,209	\$22,242,025	\$15,373,060	\$110,000	\$6,758,065
Total steam.....	531	170,503	506	121,202	1	1,089	24	48,212	15,526,455	8,708,390	100,000	6,718,065
Total sail.....	822	208,080	820	206,874	1	209	1	997	6,715,570	6,665,570	10,000	40,000

STEAMERS.

PASSENGER AND FREIGHT.

Total.....	354	129,491	336	82,262	1	1,089	17	46,140	12,660,755	6,162,690	100,000	6,398,065
California.....	147	73,833	133	45,982	1	1,089	13	26,762	7,657,705	3,759,640	100,000	3,798,065
Wilmington.....	5	756	5	756					149,500	149,500		
San Francisco.....	136	72,626	122	44,775	1	1,089	13	26,762	7,479,705	3,581,640	100,000	3,798,065
Humboldt.....	6	451	6	451					28,500	28,500		
Oregon.....	114	45,016	111	25,790			3	19,217	4,027,200	1,407,200		2,560,000
Southern Oregon.....	12	651	12	651					48,300	48,300		
Yaquina.....	7	1,077	6	160			1	917	125,000	30,000		95,000
Oregon.....	33	2,897	33	2,897					247,600	247,600		
Willamette.....	62	40,391	60	22,091			2	18,300	3,606,300	1,141,300		2,465,000
Washington—Puget sound.....	93	10,642	92	10,481			1	161	975,850	935,850		40,000

FERRY.

Total.....	38	24,630	37	24,215			1	415	979,300	939,300		40,000
California.....	20	22,551	20	22,551					816,000	816,000		
San Diego.....	3	488	3	488					31,500	31,500		
San Francisco.....	17	22,063	17	22,063					784,500	784,500		
Oregon.....	16	1,783	15	1,368			1	415	118,300	78,300		40,000
Southern Oregon.....	1	20	1	20					1,200	1,200		
Yaquina.....	1	16	1	16					900	900		
Willamette.....	14	1,747	13	1,332			1	415	116,200	76,200		40,000
Washington—Puget sound.....	2	296	2	296					45,000	45,000		

FISH.

Total.....	24	4,343	24	4,343					411,500	411,500		
California—San Francisco.....	14	3,960	14	3,960					341,000	341,000		
Oregon.....	9	370	9	370					69,000	69,000		
Yaquina.....	1	106	1	106					25,000	25,000		
Oregon.....	5	185	5	185					24,000	24,000		
Willamette.....	3	79	3	79					20,000	20,000		
Washington—Puget sound.....	1	13	1	13					1,500	1,500		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—Continued.

STEAMERS—Continued.

HARBOR TUGS.

CUSTOMS DISTRICTS.	Total number	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Compos-ite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
Total	70	6,109	66	5,540			4	569	\$1,120,800	\$985,800		\$135,000
California.....	52	4,279	50	3,928			2	351	833,500	736,500		97,000
San Diego.....	4	294	4	294					28,500	28,500		
Wilmington	1	89	1	89					22,000	22,000		
San Francisco	44	3,626	42	3,275			2	351	732,000	635,000		97,000
Humboldt	3	270	3	270					51,000	51,000		
Oregon.....	9	484	7	266			2	218	108,300	70,300		38,000
Southern Oregon.....	2	100	2	100					21,100	21,100		
Yaquina.....	2	126	2	126					44,500	44,500		
Oregon.....	1	14	1	14					2,000	2,000		
Willamette	4	244	2	26			2	218	40,700	2,700		38,000
Washington—Puget sound	9	1,346	9	1,346					179,000	179,000		

YACHTS.

Total	3	63	3	63					6,500	6,500		
California—San Diego	1	18	1	18					2,500	2,500		
Washington—Puget sound	2	45	2	45					4,000	4,000		

NO TRAFFIC REPORT.

Total	42	5,867	40	4,779			2	1,088	347,600	202,600		145,000
California.....	17	2,026	16	1,821			1	205	142,200	77,200		65,000
Wilmington	4	88	4	88					17,000	17,000		
San Francisco	12	1,874	11	1,669			1	205	122,200	57,200		65,000
Humboldt	1	64	1	64					3,000	3,000		
Oregon.....	17	2,975	16	2,092			1	883	169,400	80,400		80,000
Yaquina.....	2	956	1	73			1	883	92,000	12,000		80,000
Oregon.....	2	76	2	76					10,500	10,500		
Willamette	13	1,943	13	1,943					66,900	66,900		
Washington—Puget sound	8	866	8	866					36,000	36,000		

SAILING VESSELS.

FREIGHT.

Total	647	194,478	645	193,272	1	209	1	997	6,112,340	6,062,340	10,000	40,000
California.....	577	150,825	575	149,619	1	209	1	997	5,236,900	5,186,900	10,000	40,000
San Diego.....	7	222	7	222					20,350	20,350		
Wilmington	8	588	8	588					27,400	27,400		
San Francisco	549	146,924	547	145,718	1	209	1	997	4,948,150	4,898,150	10,000	40,000
Humboldt	13	3,091	13	3,091					241,000	241,000		
Oregon	18	2,022	18	2,022					53,385	53,385		
Southern Oregon	1	90	1	90					8,000	8,000		
Oregon.....	14	220	14	220					10,350	10,350		
Willamette	3	1,712	3	1,712					35,035	35,035		
Washington—Puget sound	52	41,631	52	41,631					822,055	822,055		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—Continued.

SAILING VESSELS—Continued.

FISH.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Compos- ite.	Iron and steel.
			Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.				
Total	60	6,372	60	6,372					\$280,955	\$280,955		
California.....	42	5,897	42	5,897					242,525	242,525		
San Diego.....	2	31	2	31					2,625	2,625		
San Francisco.....	40	5,866	40	5,866					239,900	239,900		
Oregon—Oregon	10	137	10	137					12,730	12,730		
Washington—Puget sound	8	338	8	338					25,700	25,700		

PILOT BOATS.

Total	9	418	9	418					49,700	49,700		
California.....	6	258	6	258					30,000	30,000		
San Diego.....	1	20	1	20					3,000	3,000		
Wilmington	1	8	1	8					2,500	2,500		
San Francisco.....	4	230	4	230					24,500	24,500		
Oregon—Oregon	2	141	2	141					19,000	19,000		
Washington—Puget sound	1	19	1	19					700	700		

YACHTS.

Total	25	612	25	612					69,300	69,300		
California	24	604	24	604					68,800	68,800		
San Diego.....	7	101	7	101					8,500	8,500		
Wilmington	4	98	4	98					7,500	7,500		
San Francisco	13	405	13	405					52,800	52,800		
Washington—Puget sound	1	8	1	8					500	500		

NO TRAFFIC REPORT.

Total	81	6,200	81	6,200					203,275	203,275		
California.....	48	5,362	48	5,362					175,750	175,750		
San Diego	4	87	4	87					2,500	2,500		
San Francisco	43	5,094	43	5,094					168,750	168,750		
Humboldt	1	181	1	181					4,500	4,500		
Oregon	13	476	13	476					11,950	11,950		
Oregon	10	192	10	192					8,000	8,000		
Willapa site	3	284	3	284					3,950	3,950		
Washington—Puget sound	20	362	20	362					15,575	15,575		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION, AND GROUPED BY DISTRICTS.

ALL STEAMERS AND SAILING VESSELS.

CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood. *		Composite.		Iron and steel.		Total valuation.	Wood.	Compos-ite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
Total steam and sail	1,353	378,583	1,326	328,076	2	1,298	25	49,209	\$22,242,025	\$15,373,960	\$110,000	\$6,758,065
Total steam.....	531	170,503	506	121,202	1	1,089	24	48,212	15,526,455	8,708,390	100,000	6,718,065
Total sail.....	822	208,080	820	206,874	1	209	1	997	6,715,570	6,665,570	10,000	40,000

STEAMERS.

Total for California.....	251	106,687	234	78,280	1	1,089	16	27,318	9,792,905	5,732,840	100,000	3,960,065
San Diego, California	8	800	8	800					62,500	62,500		
Ferry.....	3	488	3	488					31,500	31,500		
Harbor tugs.....	4	294	4	294					28,500	28,500		
Yachts.....	1	18	1	18					2,500	2,500		
Wilmington, California	10	933	10	933					188,500	188,500		
Passenger and freight.....	5	756	5	756					140,500	140,500		
Harbor tugs.....	1	89	1	89					22,000	22,000		
No traffic report.....	4	88	4	88					17,000	17,000		
San Francisco, California	223	104,149	206	75,742	1	1,089	16	27,318	9,459,405	5,399,340	100,000	3,960,065
Passenger and freight.....	136	72,626	122	44,775	1	1,089	13	26,762	7,479,705	3,581,640	100,000	3,798,065
Ferry.....	17	22,063	17	22,063					784,500	784,500		
Fish.....	14	3,960	14	3,960					341,000	341,000		
Harbor tugs.....	44	3,626	42	3,275			2	351	732,000	635,000		97,000
No traffic report.....	12	1,874	11	1,669			1	205	122,200	57,200		65,000
Humboldt, California	10	785	10	785					82,500	82,500		
Passenger and freight.....	6	451	6	451					28,500	28,500		
Harbor tugs.....	3	270	3	270					51,000	51,000		
No traffic report.....	1	64	1	64					3,000	3,000		
Total for Oregon.....	165	50,628	158	29,895			7	20,733	4,492,200	1,774,200		2,718,000
Southern Oregon.....	15	771	15	771					70,600	70,600		
Passenger and freight.....	12	651	12	651					48,300	48,300		
Ferry.....	1	20	1	20					1,200	1,200		
Harbor tugs.....	2	100	2	100					21,100	21,100		
Yaquina, Oregon.....	13	2,281	11	481			2	1,800	287,400	112,400		175,000
Passenger and freight.....	7	1,077	6	160			1	917	125,000	30,000		95,000
Ferry.....	1	16	1	16					900			
Fish.....	1	106	1	106					25,000	25,000		
Harbor tugs.....	2	126	2	126					44,500	44,500		
No traffic report.....	2	956	1	73			1	883	92,000	12,000		80,000
Oregon, Oregon	41	3,172	41	3,172					284,100	284,100		
Passenger and freight.....	33	2,897	33	2,897					247,600	247,600		
Fish.....	5	185	5	185					24,000	24,000		
Harbor tugs.....	1	14	1	14					2,000	2,000		
No traffic report.....	2	76	2	76					10,500	10,500		
Willamette, Oregon.....	96	44,404	91	25,471			5	18,933	3,850,100	1,307,100		2,543,000
Passenger and freight.....	62	40,391	60	22,091			2	18,830	3,606,300	1,141,300		2,465,000
Ferry.....	14	1,747	13	1,332			1	415	116,200	76,200		40,000
Fish.....	3	79	3	79					20,000	20,000		
Harbor tugs.....	4	244	2	26			2	218	40,700	2,700		38,000
No traffic report.....	13	1,943	13	1,943					66,900	66,900		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY LOCALITIES—Continued.

STEAMERS—Continued.

CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Compos ite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
Puget sound, Washington	115	13,208	114	13,047			1	161	\$1,241,350	\$1,201,350		\$40,000
Passenger and freight	93	10,642	92	10,481			1	161	975,850	935,850		40,000
Ferry	2	296	2	296					45,000	45,000		
Fish	1	13	1	13					1,500	1,500		
Harbor tugs	9	1,346	9	1,346					179,000	179,000		
Yachts	2	45	2	45					4,000	4,000		
No traffic report	8	866	8	866					36,000	36,000		

SAILING VESSELS.

Total for California	697	162,946	695	161,740	1	209	1	997	5,753,975	5,703,975	\$10,000	40,000
San Diego, California	21	461	21	461					36,975	36,975		
Freight	7	222	7	222					20,350	20,350		
Fish	2	31	2	31					2,625	2,625		
Pilot boats	1	20	1	20					3,000	3,000		
Yachts	7	101	7	101					8,500	8,500		
No traffic report	4	87	4	87					2,500	2,500		
Wilmington, California	13	694	13	694					37,400	37,400		
Freight	8	588	8	588					27,400	27,400		
Pilot boats	1	8	1	8					2,500	2,500		
Yachts	4	98	4	98					7,500	7,500		
San Francisco, California	640	158,519	647	157,313	1	209	1	997	5,434,100	5,384,100	10,000	40,000
Freight	540	146,924	547	145,718	1	209	1	997	4,948,150	4,898,150	10,000	40,000
Fish	40	5,866	40	5,866					239,900	239,900		
Pilot boats	4	230	4	230					24,500	24,500		
Yachts	13	405	13	405					52,800	52,800		
No traffic report	43	5,094	43	5,094					168,750	168,750		
Humboldt, California	14	3,272	14	3,272					245,500	245,500		
Freight	13	3,091	13	3,091					241,000	241,000		
No traffic report	1	181	1	181					4,500	4,500		
Total for Oregon	43	2,776	43	2,776					97,065	97,065		
Southern district Oregon, Oregon:												
Freight	1	90	1	90					8,000	8,000		
Oregon, Oregon	36	690	36	690					50,080	50,080		
Freight	14	220	14	220					10,350	10,350		
Fish	10	137	10	137					12,730	12,730		
Pilot boats	2	141	2	141					19,000	19,000		
No traffic report	10	192	10	192					8,000	8,000		
Willamette, Oregon	6	1,996	6	1,996					38,985	38,985		
Freight	3	1,712	3	1,712					35,035	35,035		
No traffic report	3	284	3	284					3,950	3,950		
Puget sound, Washington	82	42,358	82	42,358					864,530	864,530		
Freight	52	41,631	52	41,631					822,055	822,055		
Fish	8	338	8	338					25,700	25,700		
Pilot boats	1	19	1	19					700	700		
Yachts	1	8	1	8					500	500		
No traffic report	20	362	20	362					15,575	15,575		

TRAFFIC OPERATIONS.

TABLE 7.—TRAFFIC IN GENERAL—TRIPS, MILES COVERED, PASSENGERS CARRIED, AND TONS OF FREIGHT MOVED BY ALL OPERATING CRAFT ON THE PACIFIC COAST IN 1889, EXCLUSIVE OF FISHING VESSELS NOT ENGAGED IN THE TRANSPORTATION OF FISHING PRODUCTS AS FREIGHT.

CUSTOMS DISTRICTS.	ALL CRAFT.				STEAMERS.				SAILING VESSELS.			UNRIGGED CRAFT.
	Trips.	Miles.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Freight. (Tons.)
Total	672,670	12,273,515	8,818,363	4,019,329	633,684	6,766,160	5,741,940	4,019,329	38,986	5,507,355	2,761,826	314,597
California.....	236,216	8,239,608	5,148,940	825,177	199,917	3,323,122	2,684,383	825,177	36,299	4,916,486	2,401,593	62,964
San Diego	39,224	59,141	35,384	545,558	39,158	43,867	20	545,558	60	15,274	2,300	33,064
Wilmington	639	75,188	152,297	12,305	410	48,752	144,726	12,305	229	26,436	7,571	.....
San Francisco	192,011	7,979,209	4,799,553	242,354	156,843	3,207,096	2,420,955	242,354	35,168	4,772,113	2,351,598	27,000
Humboldt	4,342	126,070	161,706	24,960	3,506	23,407	118,682	24,960	836	102,663	40,124	2,900
Oregon	390,704	1,848,497	1,027,617	2,698,503	389,096	1,789,435	905,677	2,698,503	1,608	59,062	34,050	87,890
Southern Oregon...	6,727	107,142	178,275	33,860	6,706	98,222	119,499	33,860	21	8,020	2,916	55,860
Yaquina	4,000	68,158	31,583	15,722	4,000	68,158	31,583	15,722	.....	.....	.....	(b)
Oregon	15,256	295,818	263,227	98,006	13,692	276,076	242,130	98,006	1,564	19,742	21,007	(b)
Willamette	364,721	1,377,379	554,532	2,550,915	364,698	1,346,979	512,465	2,550,915	23	30,400	10,037	32,030
Washington — Puget sound.	45,750	2,185,410	2,641,806	495,649	44,671	1,053,603	2,151,880	495,649	1,079	531,807	326,183	163,743

a Includes unrigged craft.

b Included in steamers.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT TRAFFIC BY COMMODITIES—PRINCIPAL COMMODITIES IN TONS OF THE TOTAL FREIGHT MOVED BY ALL OPERATING CRAFT ON THE PACIFIC COAST IN 1889.

ALL CRAFT.

CUSTOMS DISTRICTS.	Total of all commodities.	Agricultural products.	Coal.	Mines and quarries.	Lumber and other forest products.	Animal products including fish.	Manufactures and general merchandise.
Total for all craft.....	8,818,863	1,152,100	1,075,600	522,497	4,239,656	74,509	1,754,001

STEAMERS.

Total.....	5,741,940	851,041	407,635	305,551	3,023,547	30,706	1,123,460
California.....	2,684,383	754,423	355,726	192,333	616,045	12,275	753,581
San Diego.....	20					20	
Wilmington.....	144,726	148	67,235	50,000	8,620		18,723
San Francisco.....	2,420,955	753,683	288,491	98,032	537,381	12,176	731,192
Humboldt.....	118,682	592		44,301	70,044	79	3,666
Oregon.....	905,677	50,382	50,872	62,034	590,032	12,660	139,697
Southern Oregon.....	119,499	940	25	502	113,877	150	4,005
Yaquina.....	31,583	14,762			881	1,534	14,406
Oregon.....	242,130	5,476	160	5,380	201,407	2,972	20,735
Willamette.....	512,465	29,204	50,687	56,152	273,867	8,004	94,551
Washington—Puget sound.....	2,151,880	46,236	1,037	51,184	1,817,470	5,771	230,182

SAILING VESSELS.

Total.....	2,761,826	262,559	627,995	214,946	1,154,325	43,803	458,198
California.....	2,401,593	253,325	569,842	210,006	921,153	37,590	409,677
San Diego.....	2,300			120		102	2,078
Wilmington.....	7,571			10	7,445	80	36
San Francisco.....	2,351,598	253,225	569,842	208,333	877,331	37,408	405,459
Humboldt.....	40,124	100		1,543	36,377		2,104
Oregon.....	34,050	912		42	17,386	4,133	11,577
Southern Oregon.....	2,916				2,466		450
Oregon.....	21,097	597		42	14,481	3,433	2,544
Willamette.....	10,037	315			499	700	8,583
Washington—Puget sound.....	320,183	8,322	58,153	4,898	215,786	2,080	36,944

UNRIGGED CRAFT.

Total.....	314,597	38,500	39,970	2,000	61,784		172,343
San Diego, California.....	33,064		19,790		13,274		
San Francisco, California.....	27,000	18,500			8,500		
Humboldt, California.....	2,900				900		2,000
Southern Oregon, Oregon.....	55,860	20,000			25,860		10,000
Willamette, Oregon.....	32,030		17,030		8,000		7,000
Puget sound, Washington.....	163,743		3,150	2,000	5,250		153,343

TRANSPORTATION ON THE PACIFIC COAST.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—AMOUNT OF EACH COMMODITY MOVED WITHIN OR BETWEEN WELL DEFINED TRAFFIC DISTRICTS BY ALL OPERATING CRAFT OF EACH CUSTOMS DISTRICT. (a)

ALL CRAFT.

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		8,818,363	1,075,600	4,239,656	522,497	1,152,100	74,509	1,754,001

SAN DIEGO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

1 Southern California coast.....	1 Southern California coast.....	33,084	19,790	13,274			20	
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SAN DIEGO, CALIFORNIA (SAILING VESSELS).

Total		2,300			120		102	2,078
2 San Francisco bay and rivers	7 Foreign.....	80			80			
1 Southern California coast.....	1 Southern California coast.....	1,823					90	1,733
Do.....	7 Foreign.....	225						225
7 Foreign.....	1 Southern California coast.....	52			40		12	
Do.....	7 Foreign.....	120						120

SAN DIEGO, CALIFORNIA (ALL CRAFT).

Total		35,384	19,790	13,274	120		122	2,078
2 San Francisco bay and rivers.....	7 Foreign.....	80			80			
1 Southern California coast.....	1 Southern California coast.....	34,907	19,790	13,274			110	1,733
Do.....	7 Foreign.....	225						225
7 Foreign.....	1 Southern California coast.....	52			40		12	
Do.....	7 Foreign.....	120						120

WILMINGTON, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

Total		144,726	67,235	8,620	50,000	148		18,723
4 Oregon coast.....	1 Southern California coast.....	8,768		8,620		148		
1 Southern California coast.....	4 Oregon coast.....	27						27
Do.....	1 Southern California coast.....	135,931	67,235		50,000			18,696

WILMINGTON, CALIFORNIA (SAILING VESSELS).

Total		7,571		7,445	10		80	36
6 Puget sound and Washington	1 Southern California coast.....	1,400		1,400				
4 Oregon coast.....	do.....	1,450		1,450				
3 Northern California coast.....	do.....	4,500		4,500				
1 Southern California coast.....	do.....	221		95	10		80	36

WILMINGTON, CALIFORNIA (ALL CRAFT).

Total		152,297	67,235	16,065	50,010	148	80	18,759
6 Puget sound and Washington	1 Southern California coast.....	1,400		1,400				
4 Oregon coast.....	do.....	10,218		10,070		148		
3 Northern California coast.....	do.....	4,500		4,500				
1 Southern California coast.....	do.....	136,152	67,235	95	50,010		80	18,722
Do.....	4 Oregon coast.....	27						27

a See page 7.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.
SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		2,447,955	288,491	545,881	98,032	772,183	12,176	731,192
6 Puget sound and Washington	2 San Francisco bay and rivers	92,125	67,853	24,272				
Do	1 Southern California coast	1,730		1,212			518	
4 Oregon coast	2 San Francisco bay and rivers	81,208	50,000	28,447		2,761		
Do	1 Southern California coast	1,208		988		220		
3 Northern California coast	3 Northern California coast	47,074		1,024	45,000		1,050	
Do	2 San Francisco bay and rivers	264,047		256,283		6,418	1,346	
Do	1 Southern California coast	48,803		48,294				509
Do	7 Foreign	941		941				
2 San Francisco bay and rivers	6 Puget sound and Washington	13,969						13,969
Do	4 Oregon coast	11,503						11,503
Do	3 Northern California coast	32,260						32,260
Do	2 San Francisco bay and rivers	1,222,223	56,981	143,933	22,024	641,023	6,150	352,112
Do	1 Southern California coast	319,491	43,700	3,975				272,116
Do	7 Foreign	19,014						19,014
Do	9 Alaska and Bering sea	18,897	177					18,720
1 Southern California coast	2 San Francisco bay and rivers	161,275		36,416	15,318	109,041	500	
Do	1 Southern California coast	12,000				12,000		
Do	7 Foreign	3,370	270	200		682		2,218
7 Foreign	6 Puget sound and Washington	15,600			15,600			
Do	5 Columbia and Willamette rivers	4,245	4,245					
Do	2 San Francisco bay and rivers	73,181	64,236	188				8,737
Do	1 Southern California coast	35				25	10	
Do	9 Alaska and Bering sea	1,029	1,029					
9 Alaska and Bering sea	2 San Francisco bay and rivers	2,602					2,602	
Do	9 Alaska and Bering sea	125		8	90	13		14

SAN FRANCISCO, CALIFORNIA (SAILING VESSELS).

Total		2,351,598	599,842	877,331	208,333	253,225	37,408	405,459
6 Puget sound and Washington	6 Puget sound and Washington	2,547	1,051					896
Do	5 Columbia and Willamette rivers	905		905				
Do	3 Northern California coast	321		321				
Do	2 San Francisco bay and rivers	415,633	238,041	177,279				313
Do	1 Southern California coast	30,032	3,647	32,985				
Do	7 Foreign	61,764		61,764				
Do	9 Alaska and Bering sea	800		800				
5 Columbia and Willamette rivers	3 Northern California coast	2,445		2,445				
Do	2 San Francisco bay and rivers	40,515		39,898				677
Do	1 Southern California coast	9,493		9,491		32		
Do	7 Foreign	2,847		2,847				
4 Oregon coast	2 San Francisco bay and rivers	101,632		100,268			945	419
Do	1 Southern California coast	5,588		5,588				
Do	7 Foreign	1,160		1,160				
3 Northern California coast	6 Puget sound and Washington	485		485				
Do	5 Columbia and Willamette rivers	635		635				
Do	2 San Francisco bay and rivers	246,024	3,375	239,439		2,384	126	700
Do	1 Southern California coast	37,960	1,125	36,825				10
Do	7 Foreign	7,383		7,383				
2 San Francisco bay and rivers	6 Puget sound and Washington	27,348						27,348
Do	5 Columbia and Willamette rivers	11,905						11,905
Do	4 Oregon coast	10,589	56					10,533
Do	3 Northern California coast	7,423						7,423
Do	2 San Francisco bay and rivers	820,828	112,459	128,654	200,784	233,466	7,918	137,547
Do	1 Southern California coast	1,476		1,476				
Do	7 Foreign	108,378	3,280	6,236		14,578		84,294
Do	9 Alaska and Bering sea	28,370	3,685	1,245				23,440
1 Southern California coast	6 Puget sound and Washington	165						165
Do	5 Columbia and Willamette rivers	750						750
Do	2 San Francisco bay and rivers	33						33
Do	1 Southern California coast	535					510	25
Do	7 Foreign	1,125		600	400			125
Do	9 Alaska and Bering sea	638						638
7 Foreign	6 Puget sound and Washington	2,758	2,016					742
Do	2 San Francisco bay and rivers	224,664	124,365	6,054	4,013	2,765	1,605	85,862
Do	1 Southern California coast	33,685	33,685					
Do	7 Foreign	38,658	24,916	12,612			230	900
Do	8 Atlantic ports	3,136			3,136			
Do	9 Alaska and Bering sea	1,500	1,500					
8 Atlantic ports	2 San Francisco bay and rivers	5,550						5,550
Do	7 Foreign	3,560						3,560
9 Alaska and Bering sea	6 Puget sound and Washington	1,820					1,820	
Do	2 San Francisco bay and rivers	41,734	16,041	26			24,053	1,614
Do	7 Foreign	201					201	

TRANSPORTATION ON THE PACIFIC COAST.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

SAN FRANCISCO, CALIFORNIA (ALL CRAFT).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		4,799,553	858,333	1,423,212	306,365	1,025,408	49,584	1,136,651
6 Puget sound and Washington	6 Puget sound and Washington	2,547	1,651					896
Do	5 Columbia and Willamette rivers	905		905				
Do	3 Northern California coast	321		321				
Do	2 San Francisco bay and rivers	507,758	305,894	201,551				313
Do	1 Southern California coast	38,362	3,647	34,197			518	
Do	7 Foreign	61,764		61,764				
Do	0 Alaska and Bering sea	800		800				
5 Columbia and Willamette rivers	3 Northern California coast	2,445		2,445				
Do	2 San Francisco bay and rivers	40,515		39,838				677
Do	1 Southern California coast	9,493		9,461		32		
Do	7 Foreign	2,847		2,847				
4 Oregon coast	2 San Francisco bay and rivers	182,840	50,000	128,715		2,761	945	419
Do	1 Southern California coast	6,796		6,576		220		
Do	7 Foreign	1,160		1,160				
3 Northern California coast	6 Puget sound and Washington	485		485				
Do	5 Columbia and Willamette rivers	635		635				
Do	3 Northern California coast	47,074		1,024	45,000		1,050	
Do	2 San Francisco bay and rivers	510,071	3,375	495,722		8,802	1,472	700
Do	1 Southern California coast	86,763	1,125	85,119				519
Do	7 Foreign	8,324		8,324				
2 San Francisco bay and rivers	6 Puget sound and Washington	41,317						41,317
Do	5 Columbia and Willamette rivers	11,905						11,905
Do	4 Oregon coast	22,092	56					22,036
Do	3 Northern California coast	30,683						30,683
Do	2 San Francisco bay and rivers	2,043,051	169,440	272,587	222,808	874,489	14,068	489,659
Do	1 Southern California coast	320,967	43,700	5,151				272,115
Do	7 Foreign	127,392	3,280	6,236		14,578		103,298
Do	9 Alaska and Bering sea	47,267	3,862	1,245				42,160
1 Southern California coast	6 Puget sound and Washington	165						165
Do	5 Columbia and Willamette rivers	750						750
Do	2 San Francisco bay and rivers	161,308		36,416	15,318	109,041	500	33
Do	1 Southern California coast	12,535				12,000	510	25
Do	7 Foreign	4,495	270	800	400	682		2,343
Do	9 Alaska and Bering sea	638						638
7 Foreign	6 Puget sound and Washington	18,358	2,016		15,600			742
Do	5 Columbia and Willamette rivers	4,245	4,245					
Do	2 San Francisco bay and rivers	297,845	188,601	6,242	4,013	2,765	1,005	94,619
Do	1 Southern California coast	33,720	33,685			25	10	
Do	7 Foreign	38,658	24,916	12,612			230	900
Do	8 Atlantic ports	3,136			3,136			
Do	9 Alaska and Bering sea	2,529	2,529					
8 Atlantic ports	2 San Francisco bay and rivers	5,550						5,550
Do	7 Foreign	3,560						3,560
9 Alaska and Bering sea	6 Puget sound and Washington	1,820					1,820	
Do	2 San Francisco bay and rivers	44,336	16,041	26			26,055	1,614
Do	7 Foreign	201					201	
Do	9 Alaska and Bering sea	125		8	90	13		14

HUMBOLDT, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

3 Northern California coast	3 Northern California coast	121,582		70,944	44,301	592	70	5,666
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HUMBOLDT, CALIFORNIA (SAILING VESSELS).

Total		40,124		36,377	1,543	100		2,104
6 Puget sound and Washington	2 San Francisco bay and rivers	4,781		4,781				
5 Columbia and Willamette rivers	do	400		400				
Do	1 Southern California coast	625		625				
4 Oregon coast	2 San Francisco bay and rivers	1,608		1,608				
3 Northern California coast	6 Puget sound and Washington	455		455				
Do	5 Columbia and Willamette rivers	625		625				
Do	3 Northern California coast	5,880		5,780	100			
Do	2 San Francisco bay and rivers	11,603		11,603				
Do	1 Southern California coast	7,520		7,520				
Do	7 Foreign	2,065		2,065				
2 San Francisco bay and rivers	6 Puget sound and Washington	100						106
Do	5 Columbia and Willamette rivers	100						100
Do	3 Northern California coast	200						200
Do	7 Foreign	1,887		915				972
7 Foreign	2 San Francisco bay and rivers	2,275			1,543			732

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

HUMBOLDT, CALIFORNIA (ALL CRAFT).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		161,706		107,321	45,844	692	79	7,770
6 Puget sound and Washington	2 San Francisco bay and rivers	4,781		4,781				
5 Columbia and Willamette rivers	do	400		400				
Do	1 Southern California coast	625		625				
4 Oregon coast	2 San Francisco bay and rivers	1,608		1,608				
3 Northern California coast	6 Puget sound and Washington	455		455				
Do	5 Columbia and Willamette rivers	625		625				
Do	3 Northern California coast	127,462		76,724	44,301	692	79	5,666
Do	2 San Francisco bay and rivers	11,603		11,603				
Do	1 Southern California coast	7,520		7,520				
Do	7 Foreign	2,065		2,065				
2 San Francisco bay and rivers	6 Puget sound and Washington	100						100
Do	5 Columbia and Willamette rivers	100						100
Do	3 Northern California coast	200						200
Do	7 Foreign	1,887		915				972
7 Foreign	2 San Francisco bay and rivers	2,275			1,543			732

SOUTHERN DISTRICT OREGON, OREGON (STEAMERS AND UNRIGGED CRAFT).

4 Oregon coast	4 Oregon coast	175,359	25	139,737	502	20,940	150	14,005
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SOUTHERN DISTRICT OREGON, OREGON (SAILING VESSELS).

Total		2,916		2,466				450
4 Oregon coast	2 San Francisco bay and rivers	2,204		2,204				
Do	1 Southern California coast	262		262				
2 San Francisco bay and rivers	4 Oregon coast	450						450

SOUTHERN DISTRICT OREGON, OREGON (ALL CRAFT).

Total		178,275	25	142,203	502	20,940	150	14,455
4 Oregon coast	4 Oregon coast	175,359	25	139,737	502	20,940	150	14,005
Do	2 San Francisco bay and rivers	2,204		2,204				
Do	1 Southern California coast	262		262				
2 San Francisco bay and rivers	4 Oregon coast	450						450

YAQUINA, OREGON (STEAMERS AND UNRIGGED CRAFT).

Total		31,583		881		14,762	1,534	14,406
5 Columbia and Willamette rivers	4 Oregon coast	1,343		83		100		1,160
4 Oregon coast	5 Columbia and Willamette rivers	1,094		184		85	825	
Do	4 Oregon coast	2,453		494			709	1,250
Do	2 San Francisco bay and rivers	4,603		120				4,383
2 San Francisco bay and rivers	4 Oregon coast	22,000				14,577		7,513

OREGON, OREGON (STEAMERS AND UNRIGGED CRAFT).

Total		242,130	160	201,407	5,380	5,476	2,972	26,735
6 Puget sound and Washington	6 Puget sound and Washington	100,464		94,781		1,221	563	3,899
Do	5 Columbia and Willamette rivers	427					427	
Do	4 Oregon coast	400						400
5 Columbia and Willamette rivers	6 Puget sound and Washington	315						315
Do	5 Columbia and Willamette rivers	104,547	160	77,267	4,420	3,180	1,982	17,538
Do	4 Oregon coast	250						250
Do	2 San Francisco bay and rivers	1,805		1,345		460		
Do	1 Southern California coast	1,300		1,000		300		
4 Oregon coast	6 Puget sound and Washington	212						212
Do	4 Oregon coast	28,930		27,014	960	315		641
2 San Francisco bay and rivers	5 Columbia and Willamette rivers	2,288						2,288
1 Southern California coast	do	1,192						1,192

TRANSPORTATION ON THE PACIFIC COAST.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

OREGON, OREGON (SAILING VESSELS).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		21,097		14,481	42	597	3,433	2,544
6 Puget sound and Washington	6 Puget sound and Washington	2,576					2,551	25
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers	18,503		14,478	40	597	877	2,511
Do	4 Oregon coast	5		3	2			
4 Oregon coast	5 Columbia and Willamette rivers	8						8
7 Foreign	9 Alaska and Bering sea	5					5	

OREGON, OREGON (ALL CRAFT).

Total		203,227	100	215,888	5,422	6,073	6,405	20,279
6 Puget sound and Washington	6 Puget sound and Washington	103,040		94,781		1,221	3,114	3,924
Do	5 Columbia and Willamette rivers	427					427	
Do	4 Oregon coast	400						400
5 Columbia and Willamette rivers	6 Puget sound and Washington	315						315
Do	5 Columbia and Willamette rivers	123,050	100	91,745	4,400	3,777	2,859	20,049
Do	4 Oregon coast	255		3	2			250
Do	2 San Francisco bay and rivers	1,805		1,345		460		
Do	1 Southern California coast	1,300		1,000		300		
4 Oregon coast	6 Puget sound and Washington	212						212
Do	5 Columbia and Willamette rivers	8						8
Do	4 Oregon coast	28,930		27,014	960	315		641
2 San Francisco bay and rivers	5 Columbia and Willamette rivers	2,288						2,288
1 Southern California coast	do	1,192						1,192
7 Foreign	9 Alaska and Bering sea	5					5	

WILLAMETTE, OREGON (STEAMERS AND UNRIGGED CRAFT).

Total		544,495	67,717	281,867	56,152	29,204	8,004	101,551
6 Puget sound and Washington	5 Columbia and Willamette rivers	800						800
Do	2 San Francisco bay and rivers	52,186	50,652	180				1,354
Do	7 Foreign	14,466						14,466
5 Columbia and Willamette rivers	6 Puget sound and Washington	7,381	30	525		441		6,385
Do	5 Columbia and Willamette rivers	467,230	17,035	278,735	56,152	28,763	8,004	78,541
Do	4 Oregon coast	2,427		2,427				
2 San Francisco bay and rivers	6 Puget sound and Washington	5						5

WILLAMETTE, OREGON (SAILING VESSELS).

Total		10,037		439		315	700	8,583
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers	25						25
Do	7 Foreign	439		439				
2 San Francisco bay and rivers	do	4,030						4,030
Do	9 Alaska and Bering sea	1,340						1,340
7 Foreign	5 Columbia and Willamette rivers	1,203				315		888
Do	2 San Francisco bay and rivers	2,300						2,300
9 Alaska and Bering sea	do	700					700	

WILLAMETTE, OREGON (ALL CRAFT).

Total		554,532	67,717	282,306	56,152	29,519	8,704	110,134
6 Puget sound and Washington	5 Columbia and Willamette rivers	800						800
Do	2 San Francisco bay and rivers	52,186	50,652	180				1,354
Do	7 Foreign	14,466						14,466
5 Columbia and Willamette rivers	6 Puget sound and Washington	7,381	30	525		441		6,385
Do	5 Columbia and Willamette rivers	467,255	17,035	278,735	56,152	28,763	8,004	78,566
Do	4 Oregon coast	2,427		2,427				
Do	7 Foreign	439		439				
2 San Francisco bay and rivers	6 Puget sound and Washington	5						5
Do	7 Foreign	4,030						4,030
Do	9 Alaska and Bering sea	1,340						1,340
7 Foreign	5 Columbia and Willamette rivers	1,203				315		888
Do	2 San Francisco bay and rivers	2,300						2,300
9 Alaska and Bering sea	do	700					700	

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

PUGET SOUND, WASHINGTON (STEAMERS AND UNRIGGED CRAFT).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total .....	.....	2,315,623	4,187	1,822,720	53,184	46,236	5,771	383,525
6 Puget sound and Washington	6 Puget sound and Washington	2,315,119	3,888	1,822,720	53,184	46,236	5,771	383,325
Do	7 Foreign	40						40
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers	100						100
Do	4 Oregon coast	60						60
7 Foreign	6 Puget sound and Washington	304	304					

PUGET SOUND, WASHINGTON (SAILING VESSELS).

Total .....	.....	326,183	58,153	215,786	4,898	8,322	2,080	36,944
6 Puget sound and Washington	6 Puget sound and Washington	15,117	119	4,038	4,888	4,026	181	1,805
Do	2 San Francisco bay and rivers	208,759	40,909	167,850				
Do	1 Southern California coast	7,833	3,360	4,473				
Do	7 Foreign	38,968	2,934	36,034				
3 Northern California coast	2 San Francisco bay and rivers	760		760				
Do	7 Foreign	2,400		2,400				
2 San Francisco bay and rivers	6 Puget sound and Washington	22,628	21		10	2,545		20,052
Do	7 Foreign	4,654	728	175		1,751		2,000
Do	9 Alaska and Bering sea	750						750
7 Foreign	6 Puget sound and Washington	56		56				
Do	2 San Francisco bay and rivers	17,460	4,260				923	12,277
Do	1 Southern California coast	5,822	5,822					
9 Alaska and Bering sea	6 Puget sound and Washington	8					8	
Do	2 San Francisco bay and rivers	910					910	
Do	9 Alaska and Bering sea	58					58	

PUGET SOUND, WASHINGTON (ALL CRAFT).

Total .....	.....	2,641,806	62,340	2,038,506	58,082	54,558	7,851	420,469
6 Puget Sound and Washington	6 Puget sound and Washington	2,330,236	4,002	1,826,758	58,072	50,202	5,952	385,190
Do	2 San Francisco bay and rivers	208,759	40,909	167,850				
Do	1 Southern California coast	7,833	3,360	4,473				
Do	7 Foreign	39,008	2,934	36,034				40
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers	100						100
Do	4 Oregon coast	60						60
3 Northern California coast	2 San Francisco bay and rivers	760		760				
Do	7 Foreign	2,400		2,400				
2 San Francisco bay and rivers	6 Puget sound and Washington	22,628	21		10	2,545		20,052
Do	7 Foreign	4,654	728	175		1,751		2,000
Do	9 Alaska and Bering sea	750						750
7 Foreign	6 Puget sound and Washington	360	304	56				
Do	2 San Francisco bay and rivers	17,460	4,260				923	12,277
Do	1 Southern California coast	5,822	5,822					
9 Alaska and Bering sea	6 Puget sound and Washington	8					8	
Do	2 San Francisco bay and rivers	910					910	
Do	9 Alaska and Bering sea	58					58	

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT (MILEAGE)—NUMBER OF MILES COVERED IN THE TRANSPORTATION OF 8,818,363 TONS OF FREIGHT BY THE OPERATING CRAFT OF EACH CUSTOMS DISTRICT, IN THEIR MOVEMENT WITHIN OR BETWEEN CERTAIN TRAFFIC DISTRICTS. (a)

ALL CRAFT.			SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT)—Continued.		
From—	To—	Miles.	From—	To—	Miles.
Total		12, 273, 515			
SAN DIEGO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).			5 Columbia and Willamette rivers. 2 San Francisco bay and rivers ... 39, 833		
1 Southern California coast.....	1 Southern California coast	43, 867	Do.....	9 Alaska and Bering sea.....	24, 882
SAN DIEGO, CALIFORNIA (SAILING VESSELS).			4 Oregon coast..... 2 San Francisco bay and rivers ... 49, 995		
Total		15, 274	Do.....	1 Southern California coast.....	1, 542
2 San Francisco bay and rivers..	7 Foreign.....	3, 200	3 Northern California coast..... 3 Northern California coast		
1 Southern California coast.....	1 Southern California coast.....	5, 688	Do.....	2 San Francisco bay and rivers ...	170, 507
Do.....	7 Foreign.....	3, 418	Do.....	1 Southern California coast.....	100, 587
7 Foreign.....	1 Southern California coast	1, 000	Do.....	7 Foreign.....	1, 716
Do.....	7 Foreign.....	1, 968	2 San Francisco bay and rivers ... 6 Puget sound and Washington ... 89, 707		
SAN DIEGO, CALIFORNIA (ALL CRAFT).			Do..... 4 Oregon coast		
Total		59, 141	Do.....	3 Northern California coast	170, 508
2 San Francisco bay and rivers..	7 Foreign.....	3, 200	Do.....	2 San Francisco bay and rivers ...	1, 647, 420
1 Southern California coast.....	1 Southern California coast.....	49, 555	Do.....	1 Southern California coast	131, 013
Do.....	7 Foreign.....	3, 418	Do.....	7 Foreign.....	111, 267
7 Foreign.....	1 Southern California coast	1, 000	Do.....	8 Atlantic ports	13, 250
Do.....	7 Foreign.....	1, 968	Do.....	9 Alaska and Bering sea.....	73, 762
SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).			1 Southern California coast..... 2 San Francisco bay and rivers ... 131, 013		
Total		48, 752	Do.....	1 Southern California coast.....	2, 255
4 Oregon coast.....	1 Southern California coast.....	17, 305	Do.....	7 Foreign.....	16, 696
1 Southern California coast.....	4 Oregon coast.....	17, 305	7 Foreign..... 6 Puget sound and Washington ... 23, 658		
Do.....	1 Southern California coast	14, 142	Do.....	5 Columbia and Willamette rivers..	25, 480
WILMINGTON, CALIFORNIA (SAILING VESSELS).			Do.....	2 San Francisco bay and rivers ...	111, 268
Total		26, 436	Do.....	1 Southern California coast.....	16, 696
6 Puget sound and Washington..	1 Southern California coast	3, 820	Do.....	9 Alaska and Bering sea.....	4, 400
4 Oregon coast.....	do.....	4, 446	SAN FRANCISCO, CALIFORNIA (SAILING VESSELS).		
3 Northern California coast.....	do.....	10, 800	Total		4, 772, 113
1 Southern California coast.....	do.....	7, 370	6 Puget sound and Washington ... 6 Puget sound and Washington ... 724		
WILMINGTON, CALIFORNIA (ALL CRAFT).			Do..... 5 Columbia and Willamette rivers.. 1, 020		
Total		75, 188	Do.....	3 Northern California coast.....	1, 422
6 Puget sound and Washington..	1 Southern California coast	3, 820	Do.....	2 San Francisco bay and rivers ...	310, 222
4 Oregon coast.....	do.....	21, 751	Do.....	1 Southern California coast.....	59, 370
3 Northern California coast.....	do.....	10, 800	Do.....	7 Foreign.....	228, 285
1 Southern California coast.....	do.....	21, 512	Do.....	9 Alaska and Bering sea.....	8, 715
Do.....	4 Oregon coast.....	17, 305	5 Columbia and Willamette rivers.. 5 Columbia and Willamette rivers.. 298		
SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).			Do..... 3 Northern California coast		
Total		3, 207, 096	Do.....	2 San Francisco bay and rivers ...	34, 207
6 Puget sound and Washington..	6 Puget sound and Washington ...	2, 234	Do.....	1 Southern California coast.....	12, 262
Do.....	5 Columbia and Willamette rivers..	3, 420	Do.....	7 Foreign.....	18, 282
Do.....	3 Northern California coast.....	1, 208	Do.....	9 Alaska and Bering sea.....	1, 018
Do.....	2 San Francisco bay and rivers ...	89, 706	4 Oregon coast..... 2 San Francisco bay and rivers ... 99, 648		
Do.....	1 Southern California coast.....	4, 335	Do.....	1 Southern California coast.....	27, 646
Do.....	9 Alaska and Bering sea.....	16, 744	Do.....	7 Foreign.....	9, 185
			3 Northern California coast..... 6 Puget sound and Washington ... 1, 422		
			Do..... 5 Columbia and Willamette rivers.. 1, 095		
			Do..... 2 San Francisco bay and rivers ... 152, 521		
			Do..... 1 Southern California coast..... 88, 262		
			Do..... 7 Foreign..... 41, 896		
			Do..... 9 Alaska and Bering sea..... 1, 018		
			4 Oregon coast..... 2 San Francisco bay and rivers ... 99, 648		
			Do..... 1 Southern California coast..... 27, 646		
			Do..... 7 Foreign..... 9, 185		
			3 Northern California coast..... 6 Puget sound and Washington ... 1, 422		
			Do..... 5 Columbia and Willamette rivers.. 1, 095		
			Do..... 2 San Francisco bay and rivers ... 152, 521		
			Do..... 1 Southern California coast..... 88, 262		
			Do..... 7 Foreign..... 41, 896		
			Do..... 9 Alaska and Bering sea..... 1, 018		
			2 San Francisco bay and rivers ... 6 Puget sound and Washington ... 310, 222		
			Do..... 5 Columbia and Willamette rivers.. 34, 208		
			Do..... 4 Oregon coast..... 99, 649		
			Do..... 3 Northern California coast..... 152, 521		
			Do..... 2 San Francisco bay and rivers ... 889, 409		
			Do..... 1 Southern California coast		
			Do..... 7 Foreign..... 3, 472		
			Do..... 9 Alaska and Bering sea..... 625, 692		
			Do..... 9 Alaska and Bering sea..... 154, 968		
			1 Southern California coast..... 6 Puget sound and Washington ... 59, 370		
			Do..... 5 Columbia and Willamette rivers.. 12, 262		
			Do..... 2 San Francisco bay and rivers ... 3, 472		
			Do..... 1 Southern California coast..... 2, 460		
			Do..... 7 Foreign..... 42, 280		
			Do..... 9 Alaska and Bering sea..... 2, 400		
			7 Foreign..... 6 Puget sound and Washington ... 228, 286		
			Do..... 2 San Francisco bay and rivers ... 625, 692		
			Do..... 1 Southern California coast..... 42, 260		
			Do..... 7 Foreign..... 166, 363		
			Do..... 8 Atlantic ports..... 16, 155		
			Do..... 9 Alaska and Bering sea..... 2, 750		
			8 Atlantic ports..... 2 San Francisco bay and rivers ... 17, 000		
			Do..... 7 Foreign..... 16, 155		
			9 Alaska and Bering sea..... 6 Puget sound and Washington ... 8, 715		
			Do..... 2 San Francisco bay and rivers ... 154, 968		
			Do..... 7 Foreign..... 2, 750		

a See page 7 and Table 9.

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT (MILEAGE)—Continued.

SAN FRANCISCO, CALIFORNIA (ALL CRAFT).			HUMBOLDT, CALIFORNIA (ALL CRAFT).		
From—	To—	Miles.	From—	To—	Miles.
Total		7,979,209	Total		126,070
6 Puget sound and Washington..	6 Puget sound and Washington...	2,958	6 Puget sound and Washington .	2 San Francisco bay and rivers...	4,600
Do.....	5 Columbia and Willamette rivers.	4,440	Do.....	1 Southern California coast	2,458
Do.....	3 Northern California coast	2,630			
Do.....	2 San Francisco bay and rivers....	399,928	5 Columbia and Willamette rivers	2 San Francisco bay and rivers....	555
Do.....	1 Southern California coast.....	63,705	Do.....	1 Southern California coast	1,015
Do.....	7 Foreign.....	228,285	4 Oregon coast	2 San Francisco bay and rivers....	3,030
Do.....	9 Alaska and Bering sea	25,459			
5 Columbia and Willametterivers	5 Columbia and Willamette rivers.	298	3 Northern California coast	6 Puget sound and Washington... 560	
Do.....	3 Northern California coast.....	1,094	Do.....	5 Columbia and Willamette rivers.	985
Do.....	2 San Francisco bay and rivers....	74,040	Do.....	3 Northern California coast.....	31,237
Do.....	1 Southern California coast.....	12,262	Do.....	2 San Francisco bay and rivers....	5,337
Do.....	7 Foreign.....	18,283	Do.....	1 Southern California coast.....	11,925
Do.....	9 Alaska and Bering sea	25,900	Do.....	7 Foreign.....	10,228
4 Oregon coast	2 San Francisco bay and rivers....	149,643	2 San Francisco bay and rivers..	6 Puget sound and Washington... 4,600	
Do.....	1 Southern California coast	29,188	Do.....	5 Columbia and Willamette rivers.	555
Do.....	7 Foreign.....	9,185	Do.....	3 Northern California coast	5,337
3 Northern California coast.....	6 Puget sound and Washington... 1,422		Do.....	7 Foreign.....	17,045
Do.....	5 Columbia and Willamette rivers.	1,005	7 Foreign	2 San Francisco bay and rivers... 17,045	
Do.....	3 Northern California coast	10,720	Do.....	7 Foreign.....	558
Do.....	2 San Francisco bay and rivers....	323,028			
Do.....	1 Southern California coast.....	183,849	SOUTHERN DISTRICT OREGON, OREGON (STEAMERS AND UNRIGGED CRAFT).		
Do.....	7 Foreign.....	49,612	4 Oregon coast	4 Oregon coast	98,222
2 San Francisco bay and rivers .	6 Puget sound and Washington... 399,929				
Do.....	5 Columbia and Willamette rivers.	34,208	SOUTHERN OREGON, OREGON (SAILING VESSELS).		
Do.....	4 Oregon coast	149,644	Total		8,920
Do.....	3 Northern California coast	323,029	4 Oregon coast	2 San Francisco bay and rivers... 3,660	
Do.....	2 San Francisco bay and rivers....	2,526,889	Do.....	1 Southern California coast	1,600
Do.....	1 Southern California coast.....	134,485	2 San Francisco bay and rivers..	4 Oregon coast	3,660
Do.....	7 Foreign.....	736,959			
Do.....	8 Atlantic ports	13,250	SOUTHERN OREGON, OREGON (ALL CRAFT).		
Do.....	9 Alaska and Bering sea	228,730	Total		107,142
6 Southern California coast.....	6 Puget sound and Washington... 59,370		4 Oregon coast	4 Oregon coast	98,222
Do.....	5 Columbia and Willamette rivers.	12,262	Do.....	2 San Francisco bay and rivers... 3,660	
Do.....	2 San Francisco bay and rivers....	194,485	Do.....	1 Southern California coast	1,600
Do.....	1 Southern California coast.....	4,715	2 San Francisco bay and rivers..	4 Oregon coast	3,660
Do.....	7 Foreign.....	58,956			
Do.....	9 Alaska and Bering sea	2,400	YAUQUINA, OREGON (STEAMERS AND UNRIGGED CRAFT).		
7 Foreign.....	6 Puget sound and Washington... 251,944		Total		68,158
Do.....	5 Columbia and Willamette rivers.	25,480	5 Columbia and Willamette rivers	4 Oregon coast	4,362
Do.....	2 San Francisco bay and rivers....	736,960	4 Oregon coast	5 Columbia and Willamette rivers.	4,362
Do.....	1 Southern California coast.....	58,956	Do.....	4 Oregon coast	27,514
Do.....	7 Foreign.....	166,363	Do.....	2 San Francisco bay and rivers... 15,960	
Do.....	8 Atlantic ports	16,155	2 San Francisco bay and rivers..	4 Oregon coast	15,960
Do.....	9 Alaska and Bering sea	7,150			
8 Atlantic ports.....	2 San Francisco bay and rivers.... 17,000		OREGON, OREGON (STEAMERS AND UNRIGGED CRAFT).		
Do.....	7 Foreign.....	16,155	Total		276,076
9 Alaska and Bering sea	6 Puget sound and Washington... 8,715		6 Puget sound and Washington .	6 Puget sound and Washington... 79,981	
Do.....	2 San Francisco bay and rivers....	228,731	Do.....	5 Columbia and Willamette rivers.	3,675
Do.....	7 Foreign.....	2,750	Do.....	4 Oregon coast	9,048
Do.....	9 Alaska and Bering sea	7,516	5 Columbia and Willamette rivers	6 Puget sound and Washington... 3,675	
			Do.....	5 Columbia and Willamette rivers.	123,271
HUMBOLDT, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).			Do.....	4 Oregon coast	6,240
3 Northern California coast	3 Northern California coast	23,407	Do.....	2 San Francisco bay and rivers... 4,370	
			Do.....	1 Southern California coast.....	1,370
HUMBOLDT, CALIFORNIA (SAILING VESSELS).			4 Oregon coast	6 Puget sound and Washington... 9,048	
Total		102,663	Do.....	4 Oregon coast	7,458
6 Puget sound and Washington..	2 San Francisco bay and rivers....	4,600	2 San Francisco bay and rivers..	5 Columbia and Willamette rivers.	4,170
Do.....	1 Southern California coast	2,458	Southern California coast.....	do.....	7,370
5 Columbia and Willamette rivers	2 San Francisco bay and rivers....	555	9 Alaska and Bering sea	9 Alaska and Bering sea	600
Do.....	1 Southern California coast.....	1,015			
4 Oregon coast	2 San Francisco bay and rivers....	3,030			
3 Northern California coast.....	6 Puget sound and Washington... 560				
Do.....	5 Columbia and Willamette rivers.	985			
Do.....	3 Northern California coast.....	7,830			
Do.....	2 San Francisco bay and rivers....	5,337			
Do.....	1 Southern California coast.....	11,925			
Do.....	7 Foreign.....	19,228			
2 San Francisco bay and rivers .	6 Puget sound and Washington... 4,600				
Do.....	5 Columbia and Willamette rivers.	555			
Do.....	3 Northern California coast	5,337			
Do.....	7 Foreign.....	17,045			
7 Foreign.....	2 San Francisco bay and rivers....	17,045			
Do.....	7 Foreign.....	558			

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES.

TABLE 11.—FINANCIAL ACCOUNT IN GENERAL—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL OPERATING CRAFT OVER FIVE TONS ON THE PACIFIC COAST IN 1889.

CUSTOMS DISTRICTS.	TOTAL ALL CRAFT.			STEAMERS AND UNRIGGED CRAFT.			SAILING VESSELS.		
	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.
Total	\$20,628,316.23	\$17,274,809.30	\$3,353,506.93	\$13,237,222.29	\$11,446,692.77	\$1,790,529.52	\$7,391,093.99	\$5,828,116.53	\$1,562,977.46
California	14,548,861.36	12,018,431.83	2,530,429.53	8,224,496.76	7,069,208.94	1,155,287.82	6,324,364.60	4,949,222.89	1,375,141.71
San Diego	62,707.47	60,442.84	2,264.63	42,507.47	45,985.04	a3,477.57	20,200.00	14,457.80	5,742.20
Wilmington	91,689.68	89,509.73	2,179.95	64,406.14	63,576.84	829.30	27,283.54	25,932.89	1,350.65
San Francisco	14,191,341.93	11,701,926.71	2,489,415.22	8,015,094.94	6,872,414.70	1,142,680.18	6,176,246.99	4,829,511.95	1,346,735.04
Humboldt	203,122.28	166,552.55	36,569.73	102,488.21	87,232.30	15,255.91	100,634.07	79,320.25	21,313.82
Oregon	3,864,723.69	3,453,508.85	411,214.84	3,771,609.33	3,388,591.33	383,018.00	93,114.36	64,917.52	28,196.84
Southern Oregon	62,886.33	48,341.36	14,544.97	56,490.33	42,405.36	14,093.97	6,387.00	5,936.00	451.00
Yaquina	119,227.63	128,260.54	a9,032.91	119,227.63	128,260.54	a9,032.91	.....	.....	.....
Oregon	243,410.16	188,686.63	54,723.53	212,478.11	167,249.00	45,229.11	30,932.05	21,437.63	9,494.42
Willamette	3,499,199.57	3,088,220.32	350,979.25	3,383,404.26	3,050,676.43	332,727.83	55,795.31	37,543.89	18,251.42
Washington—Puget sound .	2,214,731.23	1,802,868.62	411,862.61	1,241,116.20	988,892.50	252,223.70	973,615.03	813,976.12	159,638.01

a Deficit.

TRANSPORTATION ON THE PACIFIC COAST.

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EARNINGS AND EXPENSES—Continued.

TABLE 12.—ITEMIZED EXPENSE ACCOUNT OF ALL VESSELS REPORTING AND ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST, SUBDIVIDED INTO THE VARIOUS ITEMS CONSTITUTING RUNNING AND SHORE EXPENSES.

STEAMERS AND SAILING VESSELS, EXCLUSIVE OF FERRYBOATS.

CUSTOMS DISTRICTS.	Number of vessels.	RUNNING EXPENSES.						
		Total.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other.
Total	1,001	\$13,226,080.53	\$292,085.09	\$5,212,639.20	\$1,507,183.73	\$1,098,232.20	\$2,094,523.42	\$3,021,416.80
California	724	8,783,424.68	179,435.86	3,070,038.30	1,095,267.48	808,728.93	1,496,655.60	1,533,298.51
San Diego	7	9,035.85	7.00	4,143.73	1,500.00	1,572.80	.....	1,812.32
Wilmington	13	79,172.08	1,531.80	39,027.45	11,473.08	5,047.88	15,107.90	6,983.57
San Francisco	685	8,578,287.25	172,354.53	3,559,877.97	1,070,483.31	793,962.80	1,477,547.70	1,504,060.94
Humboldt	19	116,929.50	5,542.53	66,989.15	11,811.09	8,145.45	4,000.00	20,441.28
Oregon	132	2,992,026.41	74,898.01	859,531.59	196,108.54	184,579.53	419,920.30	1,256,988.44
Southern Oregon	13	41,868.05	103.50	29,484.00	2,910.00	3,602.55	4,820.80	947.20
Yaquina	7	95,958.43	1,368.80	36,153.31	9,330.44	5,854.63	22,703.00	20,548.25
Oregon	47	162,175.41	1,650.00	99,316.12	14,667.15	11,576.61	29,320.00	5,645.53
Willamette	65	2,692,024.52	71,775.71	694,578.16	163,200.95	163,545.74	363,076.50	1,229,847.46
Washington—Puget sound	145	1,450,629.44	37,751.22	683,069.31	215,807.71	104,923.83	177,947.52	231,129.85

CUSTOMS DISTRICTS.	SHORE EXPENSES.					
	Total.	Commissions.	Insurance.	Taxes.	Office expenses.	Other.
Total	\$1,672,060.79	\$175,080.30	\$542,938.01	\$125,655.76	\$210,130.26	\$618,256.46
California	1,185,713.91	133,206.84	422,993.73	93,389.87	173,002.66	363,120.81
San Diego	516.25	.....	270.00	21.25	.....	225.00
Wilmington	5,436.50	.....	3,700.00	613.25	.....	1,123.25
San Francisco	1,170,691.72	132,331.12	418,507.00	91,392.77	173,002.66	355,458.17
Humboldt	9,069.44	875.72	516.73	1,362.00	.....	6,314.39
Oregon	295,866.34	20,920.40	54,131.70	18,195.61	27,543.04	175,074.69
Southern Oregon	754.50	.....	150.00	424.50	180.00	.....
Yaquina	3,436.42	.....	450.00	1,033.18	.....	1,953.24
Oregon	3,650.91	110.00	1,985.70	870.21	450.00	235.00
Willamette	288,024.51	20,810.40	51,546.00	15,867.72	26,913.94	172,886.45
Washington—Puget sound	190,480.54	20,953.06	65,812.58	14,070.28	9,583.66	80,060.96

STEAMERS.

CUSTOMS DISTRICTS.	Number of vessels.	RUNNING EXPENSES.						
		Total.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other.
Total	354	\$8,460,400.63	\$135,921.09	\$2,924,205.19	\$832,191.57	\$613,703.33	\$2,094,523.42	\$1,859,856.03
California	147	4,726,952.38	55,737.81	1,703,263.70	516,875.06	380,400.08	1,496,655.60	574,020.13
Wilmington	5	55,903.74	222.25	25,826.45	8,169.77	2,152.13	15,107.90	4,425.24
San Francisco	136	4,029,573.76	55,035.56	1,655,683.25	508,705.29	375,725.58	1,477,547.70	556,876.38
Humboldt	6	41,474.88	480.00	21,754.00	.....	2,522.37	4,000.00	12,718.51
Oregon	114	2,939,331.60	73,352.52	832,502.84	188,345.15	182,709.82	419,920.30	1,242,550.97
Southern Oregon	12	36,118.05	.....	25,984.00	1,830.00	2,802.55	4,820.80	680.70
Yaquina	7	95,958.43	1,368.80	36,153.31	9,330.44	5,854.63	22,703.00	20,548.25
Oregon	33	150,964.89	1,650.00	88,927.37	13,917.15	11,576.61	29,320.00	5,573.76
Willamette	62	2,656,340.13	70,333.72	681,438.16	163,267.56	162,476.03	363,076.50	1,215,748.26
Washington—Puget sound	93	794,066.65	6,830.76	388,438.65	126,971.36	50,593.43	177,947.52	43,284.93

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES—Continued.

TABLE 12.—ITEMIZED EXPENSE ACCOUNT—Continued.

STEAMERS—Continued.

CUSTOMS DISTRICTS.	SHORE EXPENSES.					
	Total.	Commissions.	Insurance.	Taxes.	Office expenses.	Other.
Total	\$1,035,370.82	\$75,819.03	\$384,795.87	\$72,799.12	\$210,130.26	\$291,826.54
California.....	675,842.96	50,935.52	309,027.00	40,396.93	173,002.66	92,880.85
Wilmington	4,521.95		3,700.00	435.00		386.95
San Francisco	666,117.20	50,935.52	305,702.00	48,745.33	173,002.66	87,731.69
Humboldt	5,203.81		225.00	216.00		4,762.21
Oregon.....	293,727.74	20,520.40	52,931.70	17,682.01	27,543.94	175,049.69
Southern Oregon.....	568.50			388.50	180.00	
Yaquina	3,436.42		450.00	1,033.18		1,953.24
Oregon.....	3,557.91	110.00	1,985.70	802.21	450.00	210.00
Willamette	236,164.91	20,410.40	50,496.00	15,458.12	26,913.94	172,886.45
Washington—Puget sound	65,800.12	4,363.11	22,237.17	5,720.18	9,583.66	23,896.00

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number of vessels.	RUNNING EXPENSES.						
		Total.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other.
Total	647	\$4,765,679.90	\$150,164.00	\$2,288,434.01	\$674,992.16	\$484,528.96		\$1,161,560.77
California.....	577	4,056,472.30	123,698.05	1,966,774.60	578,392.42	428,328.85		959,278.38
San Diego.....	7	9,035.85	7.00	4,143.73	1,500.00	1,572.80		1,812.32
Wilmington	8	23,268.34	1,809.55	13,201.00	3,303.31	2,805.75		2,558.79
San Francisco	549	3,948,713.49	117,318.97	1,904,194.72	561,778.02	418,237.22		947,184.50
Humboldt.....	13	75,454.62	5,062.53	45,235.15	11,811.09	5,623.08		7,722.71
Oregon.....	18	52,644.81	1,545.49	27,028.75	7,763.39	1,869.71		14,437.47
Southern Oregon.....	1	5,750.00	103.50	3,500.00	1,080.00	800.00		266.50
Oregon.....	14	11,210.52		10,388.75	750.00			71.77
Willamette	3	35,684.29	1,441.99	13,140.00	5,933.39	1,069.71		14,099.20
Washington—Puget sound	52	656,562.79	30,920.46	294,630.66	88,836.35	54,330.40		187,844.92

CUSTOMS DISTRICTS.	SHORE EXPENSES.					
	Total.	Commissions.	Insurance.	Taxes.	Office expenses.	Other.
Total	\$636,689.97	\$99,261.27	\$158,142.14	\$52,856.64		\$326,429.92
California.....	509,870.95	82,271.32	113,366.73	43,992.94		270,239.96
San Diego	516.25		270.00	21.25		225.00
Wilmington	914.55			178.25		736.30
San Francisco	504,574.52	81,395.00	112,805.00	42,647.44		267,726.43
Humboldt	3,365.63	875.72	291.73	1,146.00		1,552.18
Oregon.....	2,138.60	400.00	1,200.00	513.60		25.00
Southern Oregon	186.00		150.00	36.00		
Oregon.....	93.00			68.00		25.00
Willamette	1,859.60	400.00	1,050.00	409.60		
Washington—Puget sound	124,680.42	16,589.95	43,575.41	8,350.10		56,164.96

TRANSPORTATION ON THE PACIFIC COAST.

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—MONTHLY WAGES PAID IN EACH DISTRICT TO ALL GRADES OF EMPLOYÉS ON VESSELS ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST IN 1889, EXCLUSIVE OF FERRYBOATS.

STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Number of vessels.	TOTAL.		CAPTAINS.		FIRST MATES.		SECOND MATES, THIRD MATES, AND BOATSWAINS.		CLERKS AND PURSERS.		SURGEONS.	
		Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.
Total	1,001	10,396	\$521,502.86	1,001	\$95,175.97	685	\$39,573.77	432	\$20,756.16	189	\$12,652.50	2	\$110.00
Total steam	354	5,825	311,545.22	354	41,271.46	286	18,783.87	138	7,556.16	188	12,552.50	2	110.00
Total sail	647	4,571	209,957.64	647	53,904.51	399	20,789.90	294	13,200.00	1	100.00		

CUSTOMS DISTRICTS.	FIRST ENGINEERS.		SECOND ENGINEERS AND THIRD ENGINEERS.		FIREMEN AND COAL PASSERS.		WHEELMEN AND PILOTS.		LOOKOUTS.		WATCHMEN.	
	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.
Total	353	\$35,798.54	251	\$18,650.00	657	\$29,847.26	134	\$9,509.17	24	\$1,089.50	160	\$6,702.73
Total steam	353	35,798.54	251	18,650.00	657	29,847.26	128	9,204.17	19	844.50	153	6,407.73
Total sail							6	305.00	5	195.00	7	295.00

CUSTOMS DISTRICTS.	COOKS AND BAKERS.		COOKS' ASSISTANTS, PANTRYMEN, AND BUTCHERS.		SEAMEN.		DECK HANDS AND PORTERS.		OILERS AND WATER TENDERS.	
	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.
Total	726	\$35,339.45	393	\$10,952.28	3,331	\$127,817.33	939	\$33,344.25	172	\$8,053.37
Total steam	296	14,544.45	267	8,372.28	800	35,090.10	939	33,344.25	172	8,053.37
Total sail	430	20,795.00	126	2,580.00	2,531	92,727.23				

CUSTOMS DISTRICTS.	STEWARDS AND STORE-KEEPERS.		WAITERS.		BOYS.		CHAMBERMAIDS AND STEWARDESSES.		CARPENTERS.	
	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.
Total	192	\$9,440.00	455	\$11,612.58	163	\$3,858.00	18	\$445.00	119	\$5,825.00
Total steam	177	8,870.00	455	11,612.58	140	3,517.00	18	445.00	32	1,670.00
Total sail	15	570.00			23	341.00			87	4,155.00

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYEES AND WAGES IN DETAIL—Continued.

STEAMERS.

CUSTOMS DISTRICTS.	Number of vessels.	TOTAL.		CAPTAINS.		FIRST MATES.		SECOND MATES, THIRD MATES, AND BOATSWAINS.		CLERKS AND PURSERS.		SURGEONS.	
		Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.
Total	354	5,825	\$311,545.22	354	\$41,271.46	286	\$18,788.87	138	\$7,556.16	188	\$12,552.50	2	\$110.00
Total for California.....	147	3,342	182,278.16	147	19,756.30	128	9,684.37	108	6,025.00	89	6,421.50	2	110.00
Total for Oregon.....	114	1,738	87,698.21	114	12,288.50	84	5,062.00	27	1,431.16	66	4,166.00		
Total for Washington.....	93	745	41,568.85	93	9,226.66	74	4,037.50	3	100.00	33	1,965.00		
California.....	147	3,342	182,278.16	147	19,756.30	128	9,684.37	108	6,025.00	89	6,421.50	2	110.00
Wilmington.....	5	49	3,060.20	5	600.30	3	191.87	2	105.00	1	54.00		
San Francisco.....	136	3,270	177,925.96	136	18,710.00	123	9,417.50	106	5,920.00	88	6,367.50		110.00
Humboldt.....	6	23	1,292.00	6	446.00	2	75.00						
Oregon.....	114	1,738	87,698.21	114	12,288.50	84	5,062.00	27	1,431.16	66	4,166.00		
Southern Oregon.....	12	42	2,717.00	12	980.00	2	90.00			1	100.00		
Yaquina.....	7	60	3,250.00	7	615.00	3	190.00	1	60.00	1	75.00		
Oregon.....	33	168	10,168.82	33	2,892.50	20	1,030.00	5	241.66	5	335.00		
Willamette.....	62	1,468	71,562.39	62	7,801.00	59	3,752.00	21	1,129.50	59	3,656.00		
Washington—Puget sound.....	93	745	41,568.85	93	9,226.66	74	4,037.50	3	100.00	33	1,965.00		

CUSTOMS DISTRICTS.	FIRST ENGINEERS.		SECOND ENGINEERS AND THIRD ENGINEERS.		FIREMEN AND COAL PASSERS.		WHEELMEN AND PILOTS.		LOOKOUTS.		WATCHMEN.	
	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.
Total	353	\$35,798.54	251	\$18,650.00	657	\$29,847.26	128	\$9,204.17	19	\$844.50	153	\$6,407.73
Total for California.....	146	16,338.22	155	12,462.50	395	18,589.46	91	7,054.17	13	544.50	73	3,147.73
Total for Oregon.....	114	11,390.16	65	4,322.50	191	8,262.62	33	1,900.00	6	300.00	57	2,320.00
Total for Washington.....	93	8,070.16	31	1,865.00	71	2,995.18	4	250.00			23	940.00
California.....	146	16,338.22	155	12,462.50	395	18,589.46	91	7,054.17	13	544.50	73	3,147.73
Wilmington.....	5	546.72	1	90.00	4	156.09	1	45.00			2	122.73
San Francisco.....	135	15,365.50	152	12,292.50	391	18,433.37	90	7,009.17	13	544.50	71	3,025.00
Humboldt.....	6	426.00	2	80.00								
Oregon.....	114	11,390.16	65	4,322.50	191	8,262.62	33	1,900.00	6	300.00	57	2,320.00
Southern Oregon.....	12	925.00	2	105.00	1	50.00					1	40.00
Yaquina.....	7	505.00	3	210.00	7	310.00	2	90.00				
Oregon.....	33	2,679.16	6	342.50	6	272.50					3	120.00
Willamette.....	62	7,281.00	54	3,665.00	177	7,630.12	31	1,810.00	6	300.00	53	2,160.00
Washington—Puget sound.....	93	8,070.16	31	1,865.00	71	2,995.18	4	250.00			23	940.00

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—Continued.

STEAMERS—Continued.

CUSTOMS DISTRICTS.	COOKS AND BAKERS.		COOKS' ASSISTANTS, PANTRYMEN, AND BUTCHERS.		SEAMEN.		DECK HANDS AND PORTERS.		OILERS AND WATER TENDERS.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	296	\$14,544.45	267	\$8,372.28	800	\$35,090.10	939	\$38,344.25	172	\$8,053.37
Total for California.....	141	7,786.78	162	5,194.78	659	29,250.00	458	19,202.40	123	5,803.37
Total for Oregon.....	84	3,660.17	84	2,650.00	124	5,205.00	320	13,257.60	48	2,150.00
Total for Washington.....	71	3,097.50	21	527.50	17	635.10	152	5,884.25	1	40.00
California.....	141	7,786.78	162	5,194.78	659	29,250.00	458	19,202.40	123	5,803.37
Wilmington.....	4	212.78	1	34.86	4	180.00	6	267.40	4	203.37
San Francisco.....	137	7,574.00	161	5,159.92	655	29,070.00	447	18,755.00	117	5,575.00
Humboldt.....							5	180.00	2	85.00
Oregon.....	84	3,660.17	84	2,650.00	124	5,205.00	320	13,257.00	48	2,150.00
Southern Oregon.....	1	26.00					10	401.00		
Yaquina.....	4	170.00	5	215.00	6	270.00	3	130.00	3	135.00
Oregon.....	12	465.00	1	25.00	11	415.00	25	1,045.50	1	35.00
Willamette.....	67	2,999.17	78	2,410.00	107	4,520.00	201	11,681.10	44	1,080.00
Washington—Puget sound.....	71	3,097.50	21	527.50	17	635.10	152	5,884.25	1	40.00

CUSTOMS DISTRICTS.	STEWARDS AND STORE- KEEPERS.		WAITERS.		BOYS.		CHAMBERMAIDS AND STEWARDESSES.		CARPENTERS.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	177	\$8,870.00	455	\$11,612.58	140	\$3,517.00	18	\$445.00	32	\$1,070.00
Total for California.....	104	5,242.00	250	6,450.08	61	1,545.00	12	200.00	25	1,320.00
Total for Oregon.....	56	2,763.00	168	4,217.50	76	1,897.00	6	155.00	6	300.00
Total for Washington.....	17	865.00	37	945.00	3	75.00			1	50.00
California.....	104	5,242.00	250	6,450.08	61	1,545.00	12	200.00	25	1,320.00
Wilmington.....	1	90.00	4	140.08	1	20.00				
San Francisco.....	103	5,152.00	246	6,310.00	60	1,525.00	12	200.00	25	1,320.00
Humboldt.....										
Oregon.....	56	2,763.00	168	4,217.50	76	1,897.00	6	155.00	6	300.00
Southern Oregon.....										
Yaquina.....	1	75.00	5	125.00						
Oregon.....	4	170.00	1	25.00	1	25.00	1	25.00	1	50.00
Willamette.....	51	2,518.00	162	4,067.50	75	1,872.00	5	130.00	4	200.00
Washington—Puget sound.....	17	865.00	37	945.00	3	75.00			1	50.00

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—Continued.

SAILING VESSELS—Continued.

CUSTOMS DISTRICTS.	COOKS AND BAKERS.		COOKS' ASSISTANTS, PANTRYMEN, AND BUTCHERS.		SEAMEN.		DECK HANDS AND PORTERS.		OILERS AND WATER TENDERS.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	430	\$20,795.00	126	\$2,580.00	2,531	\$92,727.23				
Total for California.....	372	18,070.00	79	1,655.00	2,126	77,503.63				
Total for Oregon.....	6	250.00	2	45.00	27	751.10				
Total for Washington	52	2,475.00	45	880.00	378	14,472.50				
California.....	372	18,070.00	79	1,655.00	2,126	77,503.63				
San Diego	4	150.00			6	242.75				
Wilmington	3	150.00			14	499.88				
San Francisco	354	17,235.00	79	1,655.00	2,054	74,991.00				
Humboldt	11	535.00			52	1,770.00				
Oregon.....	6	250.00	2	45.00	27	751.10				
Southern Oregon	1	50.00			4	160.00				
Oregon	3	120.00			6	166.10				
Willamette	2	80.00	2	45.00	17	425.00				
Washington—Puget sound	52	2,475.00	45	880.00	378	14,472.50				
CUSTOMS DISTRICTS.	STEWARDS AND STORE- KEEPERS.		WAITERS.		BOYS.		CHAMBERMAIDS AND STEWARDESSES.		CARPENTERS.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	15	\$570.00			23	\$341.00			87	\$4,155.00
Total for California.....	14	535.00			22	331.00			58	2,805.00
Total for Oregon.....	1	35.00			1	10.00			2	80.00
Total for Washington									27	1,270.00
California.....	14	535.00			22	331.00			58	2,805.00
San Diego										
Wilmington										
San Francisco	14	535.00			22	331.00			58	2,805.00
Humboldt										
Oregon.....	1	35.00			1	10.00			2	80.00
Southern Oregon										
Oregon										
Willamette	1	35.00			1	10.00			2	80.00
Washington—Puget sound									27	1,270.00

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES—Continued.

TABLE 14.—EMPLOYÉS AND WAGES BY COAST TOTALS—AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYÉS ON ALL VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST, EXCLUSIVE OF FERRYBOATS.

EMPLOYÉS.	ALL CRAFT.			STEAMERS.			SAILING VESSELS.		
	Number employed.	Aggregate wages for one month.	Average monthly wages.	Number employed.	Aggregate wages for one month.	Average monthly wages.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	10,396	\$521,502.86	\$50.16	5,825	\$311,545.22	\$53.48	4,571	\$209,957.64	\$45.93
Captains	1,001	95,175.97	95.08	351	41,271.46	116.59	647	53,904.51	83.31
First mates	925	39,573.77	57.77	286	18,783.87	65.68	399	20,789.90	52.11
Second mates, third mates, and boatswains	432	20,756.16	48.05	138	7,556.16	54.75	294	13,200.00	44.90
Clerks and pursers	189	12,652.50	66.94	188	12,552.50	66.77	1	100.00	100.00
Surgeons	2	110.00	55.00	2	110.00	55.00			
First engineers	353	35,798.54	101.41	353	35,798.54	101.41			
Second and third engineers	251	18,650.00	74.30	251	18,650.00	74.30			
Firemen and coal passers	657	29,847.26	45.43	657	29,847.26	45.43			
Wheelmen and pilots	134	9,509.17	70.96	128	9,204.17	71.91	6	305.00	50.83
Lookouts	24	1,039.50	43.31	19	844.50	44.45	5	195.00	39.00
Watchmen	160	6,702.73	41.89	153	6,407.73	41.88	7	295.00	42.14
Cooks and bakers	726	35,339.45	48.68	296	14,544.45	49.14	430	20,795.00	48.36
Cooks' assistants, pantrymen, and butchers	393	10,952.28	27.87	267	8,372.28	31.36	126	2,580.00	20.48
Seamen	3,331	127,817.33	38.37	800	35,090.10	43.86	2,531	92,727.23	36.64
Deck hands and porters	939	38,344.25	40.84	939	38,344.25	40.84			
Oilers and water tenders	172	8,053.37	46.82	172	8,053.37	46.82			
Stewards and storekeepers	192	9,440.00	49.17	177	8,870.00	50.11	15	570.00	38.00
Waiters	455	11,612.58	25.52	455	11,612.58	25.52			
Boys	163	3,858.00	23.67	140	3,517.00	25.12	23	341.00	14.83
Chambermaids and stewardesses	18	445.00	24.72	18	445.00	24.72			
Carpenters	119	5,825.00	48.95	32	1,670.00	52.19	87	4,155.00	47.76

TABLE 15.—FUEL ACCOUNT—AMOUNT AND VALUE OF THE COAL AND WOOD USED AS FUEL ON PASSENGER AND FREIGHT STEAMERS, FERRYBOATS, HARBOR TUGS, AND STEAM YACHTS OF THE PACIFIC COAST.

CUSTOMS DISTRICTS.	Total cost of fuel.	COAL.		WOOD.	
		Tons.	Cost.	Cords.	Cost.
Total	\$2,467,832.17	371,977	\$2,117,032.65	163,669	\$350,849.52
California	1,697,578.80	291,980	1,670,316.00	14,299	27,262.20
San Diego	10,499.40	1,842	10,499.40		
Wilmington	16,249.70	1,878	16,244.70	2	5.00
San Francisco	1,655,672.50	286,625	1,633,762.50	10,955	21,910.00
Humboldt	15,157.20	1,635	9,810.00	3,342	5,347.20
Oregon	548,186.25	54,743	340,649.25	95,643	207,537.00
Southern Oregon	5,616.10	3	22.50	3,496	5,593.60
Yaquina	26,181.90	2,945	22,087.50	2,550	4,094.40
Oregon	30,277.85	79	485.85	14,896	29,792.00
Willamette	486,110.40	51,716	318,053.40	74,692	168,057.00
Washington—Puget sound	222,117.12	25,254	106,066.80	53,727	116,050.32

TRANSPORTATION ON THE PACIFIC COAST.

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GENERAL OPERATIONS BY CLASSES.

TABLE 16.—PASSENGER AND FREIGHT VESSELS—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF ALL VESSELS ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST, EXCLUSIVE OF FERRYBOATS.

ALL CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	1,460	387,325	\$19,598,440	198,707	11,093,537	8,803,591	1,380,234

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$18,112,955.63	\$14,898,141.32	\$3,214,814.31	3,331	\$38.37	10,396	30,332	\$5,212,639.20

STEAMERS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	354	129,491	\$12,660,755	159,721	5,586,182	5,727,168	1,380,234
California.....	147	73,833	7,657,705	23,134	2,377,030	2,684,363	211,171
Wilmington	5	756	149,500	410	48,752	144,726	12,305
San Francisco	136	72,626	7,479,705	19,218	2,304,871	2,420,955	173,906
Humboldt	6	451	28,500	3,506	23,407	118,682	24,960
Oregon	114	45,016	4,027,200	104,542	1,588,444	891,784	775,665
Southern Oregon	12	651	48,300	6,522	96,566	119,499	32,585
Yaquina.....	7	1,077	125,000	2,928	67,050	31,491	14,597
Oregon	33	2,897	247,600	13,692	276,076	242,130	98,006
Willamette	62	40,391	3,606,300	81,400	1,148,752	498,664	630,477
Washington—Puget sound	93	10,642	975,850	32,045	1,620,708	2,151,021	303,398

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$11,200,131.71	\$9,495,771.45	\$1,704,360.26	800	\$43.86	5,825	15,807	\$2,924,205.19
California.....	6,507,530.74	5,402,795.34	1,104,735.40	659	44.38	3,342	9,866	1,703,263.70
Wilmington	61,347.92	60,425.69	922.23	4	45.00	49	82	25,826.45
San Francisco	6,390,204.61	5,295,690.06	1,094,513.65	655	44.38	3,270	9,740	1,655,683.25
Humboldt	55,978.21	46,678.69	9,299.52	.....	.....	23	44	21,754.00
Oregon	3,580,464.66	3,233,109.34	347,355.32	124	41.97	1,738	4,041	832,502.84
Southern Oregon	49,246.61	36,686.55	12,560.06	.....	.....	42	56	25,984.00
Yaquina.....	84,463.34	99,394.85	α14,931.51	6	45.00	60	185	36,153.31
Oregon	199,086.11	154,522.80	44,563.31	11	37.73	168	499	88,927.37
Willamette	3,247,668.60	2,942,505.14	305,163.46	107	42.24	1,468	3,301	681,438.16
Washington—Puget sound	1,112,136.31	859,866.77	252,269.54	17	37.36	745	1,900	388,438.65

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	647	194,478	\$6,112,340	38,986	5,507,355	2,761,826	.....
California.....	577	150,825	5,236,900	36,299	4,916,480	2,401,593	.....
San Diego	7	222	20,350	66	15,274	2,300	.....
Wilmington	8	588	27,400	229	26,436	7,571	.....
San Francisco	549	146,924	4,948,150	35,168	4,772,113	2,351,598	.....
Humboldt	13	3,091	241,000	836	102,663	40,124	.....

α Deficit.

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 16.—PASSENGER AND FREIGHT VESSELS—Continued.

SAILING VESSELS—Continued.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Oregon	18	2,022	\$53,385	1,608	59,082	34,050	.....
Southern Oregon	1	90	8,000	21	8,920	2,916	.....
Oregon	14	220	10,350	1,564	19,742	21,097	.....
Willamette	3	1,712	35,035	23	30,400	10,037	.....
Washington—Puget sound	52	41,631	822,055	1,079	531,807	326,183	.....

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$6,912,823.92	\$5,402,369.87	\$1,510,454.05	2,531	\$36.64	4,571	14,525	\$2,288,434.01
California	5,884,740.48	4,566,343.25	1,318,397.23	2,126	36.46	3,848	12,627	1,966,774.60
San Diego	10,640.00	9,552.10	1,087.90	6	40.46	20	33	4,143.73
Wilmington	25,533.54	24,182.89	1,350.65	14	35.71	29	60	13,201.00
San Francisco	5,747,932.87	4,453,288.01	1,294,644.86	2,051	36.51	3,699	12,280	1,904,194.72
Humboldt	100,634.07	79,320.25	21,313.82	52	34.04	100	254	45,235.15
Oregon	81,558.05	54,783.41	26,774.64	27	27.82	69	103	27,028.75
Southern Oregon	6,387.00	5,936.00	451.00	4	40.00	7	7	3,500.00
Oregon	19,375.74	11,303.52	8,072.22	6	27.68	30	43	10,388.75
Willamette	53,795.31	37,543.89	18,251.42	17	25.00	32	53	13,140.00
Washington—Puget sound	946,525.39	781,243.21	165,282.18	378	38.29	654	1,795	294,630.66

UNRIGGED CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	489	63,356	\$825,345	.....	.....	314,597	.....
San Diego, California	28	1,966	12,975	.....	.....	33,064	.....
Wilmington, California	33	3,935	62,000	.....	.....	(a)	.....
San Francisco, California	146	27,082	506,700	.....	.....	27,000	.....
Humboldt, California	22	2,290	19,525	.....	.....	2,900	.....
Southern Oregon, Oregon	93	3,026	20,690	.....	.....	55,860	.....
Yaquina, Oregon	3	40	200	.....	.....	(a)	.....
Oregon, Oregon	28	1,491	13,810	.....	.....	(a)	.....
Willamette, Oregon	34	11,002	100,400	.....	.....	32,030	.....
Puget sound, Washington	102	12,524	80,045	.....	.....	163,743	.....

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total								
San Diego, California								
Wilmington, California								
San Francisco, California								
Humboldt, California	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Southern Oregon, Oregon								
Yaquina, Oregon								
Oregon, Oregon								
Willamette, Oregon								
Puget sound, Washington								

(a) Included in steamers.

TRANSPORTATION ON THE PACIFIC COAST.

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GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 17.—FERRYBOATS—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF FERRYBOATS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	38	24, 630	\$979, 300	473, 863	1, 179, 978	14, 772	2, 039, 095
California.....	20	22 551	816, 000	176, 783	946, 092	20	614, 006
San Diego	3	488	31, 500	39, 158	43, 807	20	545, 558
San Francisco	17	22, 063	784, 500	137, 625	902, 225	.....	68, 448
Oregon.....	16	1, 783	118, 300	284, 554	200, 991	13, 893	1, 922, 838
Southern Oregon	1	20	1, 200	184	1, 656	.....	1, 275
Yaquina.....	1	16	900	1, 072	1, 108	92	1, 125
Willamette.....	14	1, 747	116, 200	283, 298	198, 227	13, 801	1, 920, 438
Washington—Puget sound.....	2	296	45, 000	12, 626	32, 895	859	102, 251

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$994, 475 95	\$964, 904. 32	\$29, 571. 63	126	\$59. 00	478	1, 150	\$395, 157
California.....	848, 798. 10	846, 558. 39	2, 239. 80	126	59. 00	397	1, 011	330, 315
San Diego.....	31, 379. 72	31, 684. 92	a305. 20	.....	.....	18	20	8, 575
San Francisco	817, 418. 47	814, 873. 47	2, 545. 00	126	59. 00	379	982	321, 740
Oregon	127, 010. 68	100, 000. 34	27, 010. 34	.....	.....	71	119	54, 814
Southern Oregon	1, 170. 00	943. 00	227. 00	.....	.....	3	6	800
Yaquina.....	600. 00	420. 00	180. 00	.....	.....	1	1	300
Willamette.....	125, 240. 68	98, 637. 34	26, 603. 34	.....	.....	67	112	53, 714
Washington—Puget sound.....	18, 667. 08	18, 345. 59	321. 49	.....	.....	10	20	10, 028

a Deficit.

TABLE 18.—FISHING VESSELS—NUMBER, TONNAGE, OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF FISHING VESSELS NOT ENGAGED IN THE TRANSPORTATION OF FISHERY PRODUCTS AS FREIGHT. (a)

STEAMERS AND SAILING VESSELS.

PORTS.	Num- ber.	Ton- nage.	Value.	Trips.	Miles.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	84	10, 715	\$992, 455	1, 183	406, 638	\$719, 872. 25	\$697, 836. 45	\$22, 035. 80	790	\$34. 97	866	1, 485	\$247, 028. 56

STEAMERS.

Total	24	4, 343	411, 500	857	117, 400	277, 303. 91	307, 796. 52	630, 487. 61	190	40. 79	136	532	114, 834. 93
San Francisco, California.....	14	3, 960	341, 000	627	104, 350	241, 440. 46	275, 746. 67	634, 306. 21	173	40. 35	95	364	99, 158. 93
Yaquina, Oregon.....	1	106	25, 000	4	1, 400	19, 350. 00	15, 531. 40	3, 818. 60	8	45. 00	13	117	5, 670. 00
Oregon, Oregon.....	5	185	24, 000	26	6, 650	12, 192. 00	12, 192. 00	.....	5	50. 00	12	32	6, 120. 00
Willamette, Oregon.....	3	79	20, 000	200	5, 000	4, 326. 45	4, 326. 45	.....	3	41. 67	13	16	3, 571. 00
Puget sound, Washington ...	1	13	1, 500	(c)	(c)	(c)	(c)	(c)	1	35. 00	3	3	315. 00

SAILING VESSELS.

Total	60	6, 372	280, 955	326	289, 238	442, 563. 34	390, 039. 93	52, 523. 41	600	33. 13	730	953	132, 193. 63
San Diego, California.....	2	31	2, 625	34	10, 432	6, 810. 00	2, 155. 70	4, 654. 30	3	27. 50	7	7	1, 465. 25
San Francisco, California ...	40	5, 866	239, 900	75	233, 476	404, 077. 40	351, 987. 22	52, 090. 18	513	33. 85	614	810	107, 178. 72
Oregon, Oregon.....	10	137	12, 730	210	7, 610	6, 087. 95	4, 665. 75	1, 422. 20	13	23. 88	19	19	2, 912. 00
Puget sound, Washington ...	8	338	25, 700	7	37, 720	25, 587. 99	31, 231. 26	65, 643. 27	71	29. 85	90	117	20, 637. 66

a Including whalers and sealers.

b Deficit.

c Not reported.

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 19.—HARBOR TUGS—NUMBER, TONNAGE, VALUE, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF HARBOR TUGS AND OTHER FLOATING CHANNEL PROPERTY.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	70	6,109	\$1,120,800	\$765,305.72	\$678,220.48	\$87,085.24	25	\$42.59	374	573	\$247,630.49
California	52	4,279	833,500	626,727.37	544,108.54	82,618.83	21	42.13	274	352	191,706.30
San Diego	4	294	28,500	11,127.75	14,300.12	a3,172.37			14	19	6,778.15
Wilmington	1	89	22,000	3,058.22	3,151.15	a92.93			7	15	1,243.15
San Francisco	44	3,026	732,000	566,031.40	486,103.66	79,927.74	19	41.30	230	295	166,950.00
Humboldt	3	270	51,000	46,510.00	40,553.61	5,956.39	2	50.00	23	23	16,735.00
Oregon	9	484	108,300	28,265.54	23,431.80	4,833.74	2	50.00	35	45	17,323.56
Southern Oregon	2	100	21,100	6,082.72	4,775.81	1,306.91			7	7	3,309.06
Yaquina	2	126	44,500	14,814.29	12,914.29	1,900.00			11	15	9,401.40
Oregon	1	14	2,000	1,200.00	534.20	665.80	1	60.00	3	6	390.00
Willamette	4	244	40,700	6,108.53	5,207.50	961.03	1	40.00	14	17	4,222.50
Washington—Puget sound ..	9	1,346	179,000	110,312.81	110,080.14	a367.33	2	40.00	65	176	38,600.63

a Deficit.

TABLE 20.—PILOT BOATS—NUMBER, TONNAGE, VALUE, EXPENSE ACCOUNT, AND DETAILS OF CREWS AND WAGES OF PILOT BOATS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Expenses.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	9	418	\$40,700	\$35,706.73	14	\$33.77	31	71	\$16,310
San Diego, California	1	20	3,000	2,750.00	1	22.75	3	3	2,250
Wilmington, California	1	8	2,500	1,750.00	1	25.00	3	3	1,440
San Francisco, California	4	230	24,500	24,236.72	9	35.00	17	57	8,820
Oregon, Oregon	2	141	19,000	5,468.36	2	40.00	5	5	2,760
Puget sound, Washington	1	19	700	1,501.65	1	30.00	3	3	1,040

TABLE 21.—YACHTS AND PLEASURE BOATS—NUMBER, TONNAGE, VALUE, AND DETAILS OF CREWS AND WAGES OF YACHTS AND PLEASURE BOATS.

STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	28	675	\$75,800	16	\$36.68	36	45	\$8,685.44

STEAMERS.

Total	3	63	6,500			5	6	234.00
San Diego, California	1	18	2,500			2	2	34.00
Puget sound, Washington	2	45	4,000			3	4	200.00

SAILING VESSELS.

Total	25	612	69,300	16	36.68	31	39	8,451.44
San Diego, California	7	101	8,500	4	25.00	8	13	930.00
Wilmington, California	4	98	7,500	2	35.00	6	7	1,680.00
San Francisco, California	13	405	52,800	9	42.25	15	17	5,528.00
Puget sound, Washington	1	8	500	1	36.68	2	2	313.44

TRANSPORTATION ON THE PACIFIC COAST.

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GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—NO TRAFFIC REPORT—NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS AND SAILING VESSELS OVER FIVE TONS REGISTERED OR OWNED ON THE PACIFIC COAST IN 1889 FOR WHICH NO TRAFFIC REPORT WAS RECEIVED.

STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	TOTAL.			OUT OF COMMISSION.			OTHERWISE NOT REPORTED ON. (a)		
	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
Total	123	12,067	\$550,875	74	8,312	\$410,400	49	3,755	\$140,475

STEAMERS.

Total	42	5,867	347,600	33	5,416	303,100	9	451	44,500
California	17	2,026	142,200	15	1,976	131,200	2	50	11,000
Wilmington	4	88	17,000	4	88	17,000			
San Francisco	12	1,874	122,200	10	1,824	111,200	2	50	11,000
Humboldt	1	64	3,000	1	64	3,000			
Oregon	17	2,975	169,400	13	2,685	141,400	4	290	28,000
Yaquina	2	956	92,000	2	956	92,000			
Oregon	2	76	10,500	1	19	500	1	57	10,000
Willamette	13	1,943	66,900	10	1,710	48,900	3	233	18,000
Washington—Puget sound	8	866	36,000	5	755	30,500	3	111	5,500

SAILING VESSELS.

Total	81	6,200	203,275	41	2,890	107,300	40	3,304	95,975
California	48	5,362	175,750	22	2,632	94,250	26	2,730	81,500
San Diego	4	87	2,500	2	44	1,000	2	43	1,500
San Francisco	43	5,094	168,750	20	2,588	93,250	23	2,506	75,500
Humboldt	1	181	4,500				1	181	4,500
Oregon	13	476	11,950	8	142	6,650	5	334	5,300
Oregon	10	192	8,000	7	129	6,500	3	63	1,500
Willamette	3	284	3,950	1	13	150	2	271	3,800
Washington—Puget sound	20	362	15,575	11	122	6,400	9	240	9,175

^a Lost prior to or during 1889, sold to foreign owners, or untraceable.

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF ALL VESSELS OF EVERY CLASS OF OCCUPATION OVER FIVE TONS REGISTERED OR OWNED ON THE PACIFIC COAST IN 1889, GROUPED BY DISTRICTS.

ALL CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total steam, sail, and unrigged.....	1,842	441,939	\$23,067,370	673,853	12,680,153	8,818,363	4,019,329

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total steam, sail, and unrigged.....	\$20,628,316.28	\$17,274,809.80	\$3,353,506.98	4,302	\$98.36	12,181	33,656	\$6,127,450.69

STEAMERS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	531	170,503	\$15,526,455	634,541	6,883,560	5,741,940	4,019,329
San Diego, California.....	8	800	62,500	39,158	43,867	20	545,558
Ferry.....	3	488	31,500	39,158	43,867	20	545,558
Harbor tugs.....	4	294	28,500				
Yachts.....	1	18	2,500				
Wilmington, California.....	10	933	188,500	410	48,752	144,726	12,305
Freight and passenger.....	5	756	149,500	410	48,752	144,726	12,305
Harbor tugs.....	1	89	22,000				
No traffic report.....	4	88	17,000				
San Francisco, California.....	223	104,140	9,459,405	157,470	3,311,446	2,420,955	242,354
Freight and passenger.....	136	72,626	7,479,705	19,218	2,304,871	2,420,955	173,906
Ferry.....	17	22,063	784,500	137,625	902,225		68,448
Fish.....	14	3,960	341,000	627	104,350		
Harbor tugs.....	44	3,626	732,000				
No traffic report.....	12	1,874	122,200				
Humboldt, California.....	10	785	82,500	3,506	23,407	118,682	24,960
Freight and passenger.....	6	451	28,500	3,506	23,407	118,682	24,960
Harbor tugs.....	3	270	51,000				
No traffic report.....	1	64	8,000				
Southern Oregon, Oregon.....	15	771	70,600	6,706	98,222	119,499	33,860
Freight and passenger.....	12	651	48,300	6,522	96,566	119,499	32,585
Ferry.....	1	20	1,200	184	1,656		1,275
Harbor tugs.....	2	100	21,100				
Yaquina, Oregon.....	13	2,281	287,400	4,004	69,558	31,583	15,722
Freight and passenger.....	7	1,077	125,000	2,928	67,050	31,491	14,597
Ferry.....	1	16	900	1,072	1,108	92	1,125
Fish.....	1	106	25,000	4	1,400		
Harbor tugs.....	2	126	44,500				
No traffic report.....	2	956	92,000				
Oregon, Oregon.....	41	3,172	284,100	13,718	282,726	242,130	98,006
Freight and passenger.....	33	2,897	247,600	13,692	276,076	242,130	98,006
Fish.....	5	185	24,000	26	6,650		
Harbor tugs.....	1	14	2,000				
No traffic report.....	2	76	10,500				
Willamette, Oregon.....	96	44,404	3,850,100	364,898	1,351,979	512,465	2,550,915
Freight and passenger.....	62	40,391	3,606,300	81,400	1,148,752	498,664	630,477
Ferry.....	14	1,747	116,200	283,298	193,227	13,801	1,920,438
Fish.....	3	79	20,000	200	5,000		
Harbor tugs.....	4	244	40,700				
No traffic report.....	13	1,943	66,900				

TRANSPORTATION ON THE PACIFIC COAST.

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GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—Continued.

STEAMERS—Continued.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Puget sound, Washington	115	13,208	\$1,241,350	44,671	1,653,603	2,151,880	495,649
Freight and passenger	93	10,642	975,850	32,045	1,620,708	2,151,021	393,398
Ferry	2	296	45,000	12,626	32,895	859	102,251
Fish	1	13	1,500 ^c	(a)	(a)		
Harbor tugs	9	1,346	179,000				
Yachts	2	45	4,000				
No traffic report	3	866	36,000				

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$13,237,222.29	\$11,446,692.77	\$1,790,529.52	1,141	\$44.99	76,818	18,068	\$3,682,061.61
San Diego, California	42,507.47	45,985.04	c3,477.57			34	50	15,387.15
Ferry	31,379.72	31,684.92	c305.20			18	29	8,575.00
Harbor tugs	11,127.75	14,300.12	c3,172.37			14	19	6,778.15
Yachts						2	2	34.00
Wilmington, California	64,406.14	63,576.84	829.30	4	45.00	56	97	27,069.60
Freight and passenger	61,347.92	60,425.69	922.23	4	45.00	49	82	25,826.45
Harbor tugs	3,058.22	3,151.15	c92.93			7	15	1,243.15
San Francisco, California	8,015,094.94	6,872,414.76	1,142,680.18	973	45.50	3,974	11,381	2,243,532.18
Freight and passenger	6,390,204.61	5,295,090.96	1,094,513.65	655	44.38	3,270	9,740	1,655,683.25
Ferry	817,418.47	814,873.47	2,545.00	126	59.00	379	982	321,740.00
Fish	241,440.46	275,746.67	c34,306.21	173	40.35	95	364	99,158.93
Harbor tugs	566,031.40	486,103.66	79,927.74	19	41.30	230	295	166,950.00
Humboldt, California	102,488.21	87,232.30	15,255.91	2	50.00	46	67	38,489.00
Freight and passenger	55,978.21	46,678.69	9,299.52			23	44	21,754.00
Harbor tugs	46,510.00	40,553.61	5,956.39	2	50.00	23	23	16,735.00
Southern Oregon, Oregon	56,499.33	42,405.36	14,093.97			52	69	30,093.66
Freight and passenger	49,246.61	36,686.55	12,560.06			42	56	25,984.00
Ferry	1,170.00	943.00	227.00			3	6	800.00
Harbor tugs	6,082.72	4,775.81	1,306.91			7	7	3,309.66
Yaquina, Oregon	119,227.63	128,260.54	c9,032.91	14	45.00	85	318	51,524.71
Freight and passenger	84,463.34	99,394.85	c14,931.51	6	45.00	60	185	36,153.31
Ferry	600.00	420.00	180.00			1	1	300.00
Fish	19,350.00	15,531.40	3,818.60	8	45.00	13	117	5,670.00
Harbor tugs	14,814.29	12,914.29	1,900.00			11	15	9,401.40
Oregon, Oregon	212,478.11	167,249.00	45,229.11	17	42.65	183	537	95,437.37
Freight and passenger	199,086.11	154,522.80	44,563.31	11	37.73	168	499	88,927.37
Fish	12,192.00	12,192.00		5	50.00	12	32	6,120.00
Harbor tugs	1,200.00	534.20	665.80	1	60.00	3	6	390.00
Willamette, Oregon	3,383,404.26	3,050,676.43	332,727.83	111	42.20	1,562	3,446	742,945.66
Freight and passenger	3,247,668.60	2,942,505.14	305,163.46	107	42.24	1,468	3,301	681,438.16
Ferry	125,240.68	98,637.34	26,603.34			67	112	53,714.00
Fish	4,326.45	4,326.45		3	41.67	13	16	3,571.00
Harbor tugs	6,168.53	5,207.50	961.03	1	40.00	14	17	4,222.50
Puget sound, Washington	1,241,116.20	988,892.50	252,223.70	20	37.51	826	2,103	437,582.28
Freight and passenger	1,112,136.31	859,866.77	252,269.54	17	37.36	745	1,900	383,438.65
Ferry	18,667.08	18,345.59	321.49			10	20	10,028.00
Fish	(a)	(a)	(a)	1	35.00	3	3	315.00
Harbor tugs	110,312.81	110,680.14	c367.33	2	40.00	65	176	38,600.63
Yachts						3	4	200.00

^a Not reported.

^b Includes unrigged.

^c Deficit.

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—Continued.

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total.....	822	208,080	\$6,715,570	39,312	5,796,593	2,761,826	.....
San Diego, California.....	21	461	36,975	100	25,706	2,300	.....
Freight.....	7	222	20,350	66	15,274	2,300	.....
Fish.....	2	31	2,625	34	10,432		.....
Pilot boats.....	1	20	3,000				.....
Yachts.....	7	101	8,500				.....
No traffic report.....	4	87	2,500				.....
Wilmington, California.....	13	694	37,400	229	26,436	7,571	.....
Freight.....	8	588	27,400	229	26,436	7,571	.....
Pilot boats.....	1	8	2,500				.....
Yachts.....	4	98	7,500				.....
San Francisco, California.....	649	158,519	5,434,100	35,243	5,005,589	2,351,598	.....
Freight.....	549	146,924	4,948,150	35,168	4,772,113	2,351,598	.....
Fish.....	40	5,866	239,900	75	233,476		.....
Pilot boats.....	4	230	24,500				.....
Yachts.....	13	405	52,800				.....
No traffic report.....	43	5,094	168,750				.....
Humboldt, California.....	14	3,272	245,500	836	102,663	40,124	.....
Freight.....	13	3,091	241,000	836	102,663	40,124	.....
No traffic report.....	1	181	4,500				.....
Southern Oregon, Oregon:							
Freight.....	1	90	8,000	21	8,920	2,016	.....
Oregon, Oregon.....	36	690	50,080	1,774	27,352	21,097	.....
Freight.....	14	220	10,350	1,504	19,742	21,097	.....
Fish.....	10	137	12,730	210	7,610		.....
Pilot boats.....	2	141	19,000				.....
No traffic report.....	10	192	8,000				.....
Willamette, Oregon.....	6	1,996	38,985	23	30,400	10,037	.....
Freight.....	3	1,712	35,035	23	30,400	10,037	.....
No traffic report.....	3	284	3,950				.....
Puget sound, Washington.....	82	42,358	864,530	1,086	569,527	326,183	.....
Freight.....	52	41,631	822,055	1,079	531,807	326,183	.....
Fish.....	8	333	25,700	7	37,720		.....
Pilot boats.....	1	19	700				.....
Yachts.....	1	8	500				.....
No traffic report.....	20	362	15,575				.....

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total.....	\$7,391,093.99	\$5,828,116.53	\$1,562,977.46	3,161	\$35.96	5,363	15,588	\$2,445,339.08
San Diego, California.....	20,200.00	14,457.80	5,742.20	14	32.00	38	56	8,788.98
Freight.....	10,640.00	9,552.10	1,087.90	6	40.46	20	33	4,143.73
Fish.....	6,810.00	2,155.70	4,654.30	3	27.50	7	7	1,465.25
Pilot boats.....	2,750.00	2,750.00		1	22.75	3	3	2,250.00
Yachts.....				4	25.00	8	13	930.00
Wilmington, California.....	27,283.54	25,932.89	1,350.65	17	35.00	38	70	16,321.00
Freight.....	25,533.54	24,182.89	1,350.65	14	35.71	29	60	13,201.00
Pilot boats.....	2,750.00	1,750.00		1	25.00	3	3	1,440.00
Yachts.....				2	35.00	6	7	1,680.00

^a Gross earnings includes the boats' earnings only; professional earnings of the pilots are not included.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—Continued.

SAILING VESSELS—Continued.

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
San Francisco, California.....	\$6,176,246.99	\$4,829,511.95	\$1,346,735.04	2,585	\$36.00	4,345	13,164	\$2,025,721.44
Freight.....	5,747,932.87	4,453,288.01	1,294,644.86	2,054	36.51	3,699	12,280	1,904,194.72
Fish.....	404,077.40	351,987.22	52,090.18	513	33.85	614	810	107,178.72
Pilot boats.....	24,236.72	24,236.72		9	35.00	17	57	8,820.00
Yachts.....				9	42.25	15	17	5,528.00
Humboldt, California:								
Freight.....	100,634.07	79,320.25	21,313.82	52	34.04	100	254	45,235.15
Southern Oregon, Oregon:								
Freight.....	6,387.00	5,936.00	451.00	4	40.00	7	7	3,500.00
Oregon, Oregon.....	30,932.05	21,437.63	9,494.42	21	26.50	54	67	16,060.75
Freight.....	10,375.74	11,303.52	8,072.22	6	27.68	30	43	10,388.75
Fish.....	6,087.95	4,665.75	1,422.20	13	23.88	19	19	2,912.00
Pilot boats.....	5,468.36	5,468.36		2	40.00	5	5	2,760.00
Willamette, Oregon:								
Freight.....	55,795.31	37,543.89	18,251.42	17	25.00	32	53	13,140.00
Puget sound, Washington.....	973,615.03	813,976.12	159,638.91	451	36.94	749	1,917	316,621.76
Freight.....	946,525.39	781,243.21	165,282.18	378	38.29	654	1,795	294,630.06
Fish.....	25,587.90	31,231.26	65,643.27	71	29.85	90	117	20,637.66
Pilot boats.....	1,501.65	1,501.65		1	30.00	3	3	1,040.00
Yachts.....				1	36.68	2	2	313.44

UNRIGGED CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total.....	489	63,356	\$825,345			314,597	
San Diego, California.....	28	1,966	12,975			33,064	
Wilmington, California.....	33	3,935	62,000			(c)	
San Francisco, California.....	146	27,082	506,700			27,000	
Humboldt, California.....	22	2,290	19,525			2,900	
Southern Oregon, Oregon.....	93	3,026	20,690			55,800	
Yaquina, Oregon.....	3	40	200			(c)	
Oregon, Oregon.....	28	1,491	13,810			(c)	
Willamette, Oregon.....	34	11,002	109,400			32,030	
Puget sound, Washington.....	102	12,524	80,045			163,743	

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total.....								
San Diego, California.....								
Wilmington, California.....								
San Francisco, California.....								
Humboldt, California.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Southern Oregon, Oregon.....								
Yaquina, Oregon.....								
Oregon, Oregon.....								
Willamette, Oregon.....								
Puget sound, Washington.....								

a Gross earnings includes the boats' earnings only; professional earnings of the pilots are not included.

b Deficit.

c Included in steamers.

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS.

TABLE 24.—STEAMERS AND UNRIGGED CRAFT IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUE OF STEAMERS AND UNRIGGED CRAFT IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.	ALL CRAFT.			STEAMERS.			UNRIGGED CRAFT.		
	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
Total	1880.. 534	125,090.48	\$6,620,980	319	97,004.88	\$6,477,500	215	28,085.60	\$143,480
	1889.. 1,020	233,859.00	16,351,800	531	170,503.00	15,526,455	489	63,356.00	825,345
California	1880.. 266	73,507.80	3,873,380	^a 178	58,828.80	3,763,200	88	14,679.00	110,180
	1889.. 480	141,940.00	10,394,105	251	106,067.00	9,792,905	229	35,273.00	601,200
Oregon	1880.. 198	43,657.54	2,207,700	80	31,370.94	2,177,000	109	12,286.60	30,700
	1889.. 323	66,187.00	4,636,300	165	50,628.00	4,492,200	158	15,559.00	144,100
Washington.....	1880.. 70	7,025.14	539,900	52	6,805.14	537,300	18	1,120.00	2,600
	1889.. 217	25,732.00	1,321,395	115	13,208.00	1,241,350	102	12,524.00	80,045

^a Exclusive of Pacific Mail interests owned in New York.

TABLE 25.—STEAMERS BY CLASSES IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUE OF STEAMERS IN 1880 AND 1889, GIVEN BY CLASSES, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

CLASSES AND YEARS.	Number.	Tonnage.	Value.
Total.....	1880.. 319	97,004.88	\$6,477,500
	1889.. 531	170,503.10	15,526,455
Passenger and freight.....	1880.. 224	70,392.43	4,414,900
	1889.. 354	129,490.38	12,660,755
Ferry.....	1880.. 32	21,693.99	1,429,100
	1889.. 38	24,629.26	979,300
Towing and harbor.....	1880.. 52	4,558.49	614,600
	1889.. 70	6,109.51	1,120,800
Miscellaneous.....	1880.. 11	59.97	18,900
	1889.. 69	10,273.95	765,600

TABLE 26.—GROSS EARNINGS OF STEAMERS IN 1880 AND 1889—GROSS EARNINGS OF STEAMERS OPERATING IN 1880 AND 1889, TOGETHER WITH THE AMOUNT PAID OUT IN WAGES DURING THOSE YEARS, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.	Gross earnings.	Paid in wages.
Total.....	1880.. \$6,362,770	\$1,953,451
	1889.. 13,237,222	3,682,062
California.....	1880.. 4,011,084	1,158,200
	1889.. 8,224,497	2,324,478
Oregon.....	1880.. 1,983,703	602,576
	1889.. 3,771,609	920,002
Washington.....	1880.. 367,983	192,675
	1889.. 1,241,116	437,582

TABLE 27.—STEAMERS' CREWS AND WAGES IN 1880 AND 1889—NUMBER OF MEN CONSTITUTING ORDINARY CREWS EMPLOYED ON STEAMERS OPERATING IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES, TOGETHER WITH WAGES PAID AND AVERAGES OF ANNUAL PAY AND DECREASE OR INCREASE PER MAN, GIVEN BY LOCALITIES.

STATES AND YEARS.	Total number men, ordinary crews.	Total wages paid.	Average annual wages per man.	Average annual decrease in wages per man.
Total.....	1880.. 3,008	\$1,953,451	\$649.42	.....
	1889.. 6,818	3,682,062	540.05	\$109.37
California.....	1880.. 1,970	1,158,200	587.92	.....
	1889.. 4,110	2,324,478	565.57	22.35
Oregon.....	1880.. 788	602,576	764.69	.....
	1889.. 1,882	920,002	488.84	275.85
Washington.....	1880.. 250	192,675	770.70	.....
	1889.. 826	437,582	529.76	240.94

COMPARATIVE STATISTICS—Continued.

TABLE 28.—STEAMER TRAFFIC IN 1880 AND 1889—NUMBER OF TONS OF FREIGHT MOVED AND NUMBER OF PASSENGERS CARRIED BY STEAMERS AND UNRIGGED CRAFT OPERATING IN 1880 AND 1889, GIVEN BY LOCALITIES, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.	FREIGHT IN TONS.			PASSENGERS.		
	Total.	By steamers.	By unrigged craft.	Total.	Regular.	Ferry.
Total.....1880.....	2,087,293	2,087,293	.....	6,604,712	300,752	6,303,960
.....1889.....	8,488,101	8,173,504	314,597	15,672,093	1,380,234	14,291,859
California.....1880.....	1,561,256	1,561,256	.....	6,309,502	140,650	6,168,852
.....1889.....	5,178,911	5,115,947	62,964	12,477,941	211,171	12,266,770
Oregon.....1880.....	476,898	476,898	.....	159,903	66,615	93,288
.....1889.....	993,567	905,677	87,890	2,698,503	775,665	1,922,838
Washington.....1880.....	49,139	49,139	.....	135,307	93,487	41,820
.....1889.....	2,315,623	2,151,880	163,743	495,649	393,398	102,251

^aIncluding railroad ferry freight.

^bIncluding railroad ferry passengers.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT REGISTERED IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST FOR THE TEN YEARS 1880-1889.

1880.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	1,124	270,801.75	305	110,414.61	752	148,400.41	67	11,986.73
California.....	884	202,114.30	171	75,965.35	652	117,970.52	61	8,178.43
San Diego.....	17	975.26	2	147.94	15	827.32	.....	.....
San Francisco.....	867	201,139.04	169	75,817.41	637	117,143.20	61	8,178.43
Oregon.....	135	39,657.63	91	28,808.00	38	7,041.33	6	3,808.30
Southern Oregon.....	12	662.09	12	662.09	.....	.....	.....	.....
Oregon.....	46	2,360.79	17	1,037.86	29	1,322.93	.....	.....
Willamette.....	77	36,634.75	62	27,108.05	9	5,718.40	6	3,808.30
Washington—Puget sound.....	105	29,029.82	43	5,641.26	62	23,388.56	.....	.....

1881.

Total.....	1,128	284,425.60	310	112,494.54	748	158,940.98	70	13,050.08
California.....	868	202,906.59	168	75,336.06	639	119,392.10	61	8,178.43
San Diego.....	21	1,053.94	2	147.94	19	906.00	.....	.....
San Francisco.....	847	201,852.65	166	75,188.12	620	118,486.10	61	8,178.43
Oregon.....	143	43,500.79	98	31,761.16	37	6,906.41	8	4,833.22
Southern Oregon.....	12	661.17	12	661.17	.....	.....	.....	.....
Oregon.....	44	2,270.04	18	1,399.90	26	870.14	.....	.....
Willamette.....	87	40,569.58	68	29,700.09	11	6,036.27	8	4,833.22
Washington—Puget sound.....	117	38,018.22	44	5,337.32	72	32,642.47	1	38.43

1882.

Total.....	1,166	300,766.83	326	120,434.24	772	167,351.44	68	12,980.45
California.....	887	211,126.02	170	75,385.21	656	127,562.38	61	8,178.43
San Diego.....	27	3,068.17	5	255.23	22	2,812.94	.....	.....
San Francisco.....	860	208,057.85	165	75,129.98	634	124,749.44	61	8,178.43
Oregon.....	156	52,568.56	106	39,330.46	43	8,386.08	7	4,802.02
Southern Oregon.....	12	660.95	12	660.95	.....	.....	.....	.....
Oregon.....	50	3,770.80	20	1,521.21	30	2,249.59	.....	.....
Willamette.....	94	48,136.81	74	37,198.30	13	6,136.49	7	4,802.02
Washington—Puget sound.....	123	37,072.25	50	5,669.27	73	31,402.98	.....	.....

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—Continued.

1883.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,169	326,944.94	349	134,435.75	812	186,536.21	8	5,972.98
California.....	884	230,168.26	185	87,293.86	699	142,874.40		
San Diego	22	1,357.96	5	622.63	17	735.33		
Wilmington	9	1,071.64	3	533.90	6	537.74		
San Francisco	842	225,864.51	174	85,961.13	668	139,903.38		
Humboldt	11	1,874.15	3	176.20	8	1,697.95		
Oregon.....	145	52,994.69	102	39,155.01	35	7,866.70	8	5,972.98
Southern Oregon.....	12	706.15	12	706.15				
Oregon	46	3,432.44	22	1,686.07	24	1,746.37		
Willamette	87	48,856.10	68	36,762.79	11	6,120.33	8	5,972.98
Washington—Puget sound	140	49,781.99	62	7,986.88	78	35,795.11		

1884.

Total	1,202	334,188.81	384	146,561.82	818	187,626.99		
California.....	875	233,440.22	185	97,377.34	690	136,062.88		
San Diego	14	344.45	4	200.31	10	135.14		
Wilmington	11	1,422.54	3	533.90	8	888.64		
San Francisco	823	227,673.06	169	95,620.02	654	132,053.04		
Humboldt	27	4,000.17	9	1,014.11	18	2,986.06		
Oregon.....	163	50,798.48	121	40,182.07	42	10,616.41		
Southern Oregon.....	11	866.34	11	866.34				
Yaquina.....	5	1,295.29	5	1,295.29				
Oregon	57	3,887.45	30	2,107.43	27	1,780.02		
Willamette	90	44,749.40	75	35,913.01	15	8,836.39		
Washington—Puget sound	164	49,950.11	78	9,002.41	86	40,947.70		

1885.

Total	1,250	360,110.56	402	153,808.04	840	200,329.54	8	5,972.98
California.....	900	251,142.60	194	101,757.24	706	149,385.36		
San Diego.....	11	380.97	2	120.58	9	260.39		
Wilmington	12	831.93	3	236.55	9	595.38		
San Francisco	854	246,876.05	180	100,386.00	674	146,490.05		
Humboldt	23	3,053.65	9	1,014.11	14	2,039.54		
Oregon.....	184	59,191.81	129	42,026.54	47	10,592.29	8	5,972.98
Southern Oregon.....	14	1,554.19	12	1,417.39	2	136.80		
Yaquina.....	5	1,307.39	5	1,307.39				
Oregon	66	4,113.55	35	2,320.26	31	1,793.29		
Willamette	99	52,216.68	77	37,581.50	14	8,662.20	8	5,972.98
Washington—Puget sound	166	49,776.15	79	9,424.26	87	40,351.89		

TRANSPORTATION ON THE PACIFIC COAST.

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COMPARATIVE STATISTICS—Continued.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—Continued.

1886.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,253	347,059.73	416	156,320.30	829	184,766.45	8	5,972.98
California	885	248,132.93	198	103,591.98	687	144,540.95		
San Diego	13	203.00	2	34.16	11	168.84		
Wilmington	13	919.70	3	307.93	10	611.77		
San Francisco	833	243,413.77	183	102,178.08	650	141,235.69		
Humboldt	26	3,596.46	10	1,071.81	16	2,524.65		
Oregon	191	56,806.43	132	42,517.08	51	8,316.37	8	5,972.98
Southern Oregon	14	763.07	11	608.31	3	154.76		
Yaquina	6	1,406.59	6	1,406.59				
Oregon	68	2,816.20	34	2,161.17	34	655.03		
Willamette	103	51,820.57	81	38,341.01	14	7,506.58	8	5,972.98
Washington—Puget sound	177	42,120.37	86	10,211.24	91	31,909.13		

1887.

Total	1,217	355,814.58	426	160,139.75	783	189,701.85	8	5,972.98
California	864	254,092.29	203	111,049.41	661	143,042.88		
San Diego	21	2,519.64	4	443.45	17	2,076.19		
Wilmington	15	1,737.64	3	307.93	12	1,429.71		
San Francisco	803	246,699.65	187	109,606.65	616	137,093.00		
Humboldt	25	3,135.36	9	691.38	16	2,443.98		
Oregon	188	52,261.60	137	38,697.60	43	7,591.11	8	5,972.98
Southern Oregon	12	554.39	11	538.08	1	16.31		
Yaquina	10	3,332.84	10	3,332.84				
Oregon	65	3,352.49	33	2,318.73	32	1,033.76		
Willamette	101	45,021.97	83	32,507.95	10	6,541.04	8	5,972.98
Washington—Puget sound	165	49,460.60	86	10,392.74	79	39,067.86		

1888.

Total	1,293	399,173.18	459	168,268.58	826	224,931.62	8	5,972.98
California	917	281,131.83	225	115,976.96	692	165,154.87		
San Diego	31	2,167.62	7	1,088.50	24	1,079.12		
Wilmington	18	2,598.41	5	580.95	13	2,017.46		
San Francisco	837	271,063.19	204	113,725.12	633	157,338.07		
Humboldt	31	5,302.61	9	582.39	22	4,720.22		
Oregon	185	53,317.28	136	40,616.88	41	6,727.42	8	5,972.98
Southern Oregon	12	548.10	12	548.10				
Yaquina	9	2,202.75	9	2,202.75				
Oregon	67	4,462.93	34	2,188.38	33	2,274.55		
Willamette	97	46,103.50	81	35,677.65	8	4,452.87	8	5,972.98
Washington—Puget sound	191	64,724.07	98	11,674.74	93	53,049.33		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—Continued.

1889.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,387	435,004.14	517	180,496.04	841	248,420.78	9	6,078.32
California.....	957	314,227.08	249	122,405.03	708	191,822.05		
San Diego.....	30	1,630.92	8	1,136.01	22	494.91		
Wilmington.....	19	1,570.68	7	889.64	12	681.04		
San Francisco.....	880	306,178.34	222	119,177.69	658	187,000.65		
Humboldt.....	28	4,847.14	12	1,201.69	16	3,645.45		
Oregon.....	196	51,238.13	148	39,543.21	40	5,721.94	8	5,972.98
Southern Oregon.....	15	779.11	13	660.65	2	118.46		
Yaquina.....	11	2,360.85	11	2,960.85				
Oregon.....	72	5,391.03	40	3,003.96	32	2,387.07		
Willamette.....	98	42,707.14	84	33,517.75	6	3,210.41	8	5,972.98
Washington—Puget sound.....	214	69,538.93	120	18,547.80	93	50,885.70	1	106.34

RECAPITULATION FOR THE TEN YEARS.

1880.....	1,124	270,801.75	305	110,414.61	752	148,400.41	67	11,986.73
1881.....	1,128	284,425.60	310	112,434.54	748	158,940.98	70	13,050.68
1882.....	1,166	300,766.83	326	120,434.94	772	167,351.44	68	12,980.45
1883.....	1,169	326,944.94	349	134,435.75	812	186,536.21	8	5,972.98
1884.....	1,202	334,188.81	384	146,561.82	818	187,626.99		
1885.....	1,250	360,110.56	402	153,808.04	840	200,329.54	8	5,972.98
1886.....	1,253	347,059.73	416	156,320.30	829	184,766.45	8	5,972.98
1887.....	1,217	355,814.58	426	160,139.75	783	180,701.85	8	5,972.98
1888.....	1,293	399,173.18	459	168,263.58	826	224,931.62	8	5,972.98
1889.....	1,387	435,004.14	517	180,496.04	841	248,420.78	9	6,078.32

TRANSPORTATION ON THE PACIFIC COAST.

COMPARATIVE STATISTICS—Continued.

TABLE 30.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	1,124	270,801.75	240.93	1,128	284,425.60	252.15	1,166	300,766.83	257.95	1,169	326,944.94	279.68	1,202	334,188.81	278.03
California	884	202,114.30	228.64	868	202,906.59	233.76	887	211,126.02	238.02	884	230,168.26	260.37	875	233,440.22	266.79
San Diego	17	975.26	57.37	21	1,053.94	50.19	27	3,068.17	113.64	22	1,357.96	61.73	14	344.45	24.60
Wilmington										9	1,071.64	119.07	11	1,422.54	129.32
San Francisco	867	201,139.04	231.99	847	201,852.65	238.31	860	208,057.85	241.93	842	225,864.51	268.25	823	227,673.06	276.64
Humboldt										11	1,874.15	170.38	27	4,000.17	148.15
Oregon	135	39,657.63	293.76	143	43,500.79	304.20	156	52,568.56	336.98	145	52,994.69	365.48	163	50,798.48	311.65
Southern Oregon ..	12	662.09	55.17	12	661.17	55.10	12	660.95	55.08	12	706.15	58.85	11	866.34	78.76
Yaquina													5	1,295.29	259.06
Oregon	46	2,360.79	51.32	44	2,270.04	51.59	50	3,770.80	75.42	46	3,432.44	74.62	57	3,887.45	68.20
Willamette	77	36,634.75	475.78	87	40,569.58	466.32	94	48,136.81	512.09	87	48,856.10	561.56	90	44,749.40	497.22
Washington — Puget sound.	105	29,029.82	276.47	117	38,018.22	324.94	123	37,072.25	301.40	140	43,781.99	312.73	164	49,950.11	304.57

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	1,250	360,110.56	288.09	1,258	347,059.73	276.98	1,217	355,814.58	292.37	1,293	399,173.18	308.72	1,367	435,004.14	318.22
California	900	251,142.60	279.05	885	248,132.93	280.38	864	254,092.29	294.09	917	281,131.83	306.58	957	314,227.08	328.35
San Diego	11	380.97	34.63	13	203.00	15.62	21	2,519.64	119.98	31	2,167.62	69.92	30	1,630.92	54.36
Wilmington	12	831.98	69.33	13	919.70	70.75	15	1,737.64	115.84	18	2,598.41	144.36	19	1,570.68	82.67
San Francisco	854	246,876.05	289.08	833	243,413.77	292.21	803	246,609.65	307.22	837	271,063.19	323.85	880	306,178.34	347.03
Humboldt	23	3,053.65	132.77	26	3,596.46	138.33	25	3,135.36	125.41	31	5,302.61	171.05	28	4,847.14	173.11
Oregon	184	59,191.81	321.69	191	56,806.43	297.42	188	52,261.69	277.99	185	53,317.28	288.20	196	51,238.13	261.42
Southern Oregon ..	14	1,554.19	111.01	14	763.07	54.51	12	554.39	46.20	12	548.10	45.68	15	779.11	51.94
Yaquina	5	1,307.39	261.48	6	1,466.59	234.43	10	3,332.84	333.28	9	2,202.75	244.75	11	2,360.85	214.62
Oregon	66	4,113.55	62.33	68	2,816.20	41.41	65	3,352.49	51.58	67	4,462.93	66.61	72	5,301.03	74.88
Willamette	99	52,216.68	527.44	103	51,820.57	503.11	101	45,021.97	445.76	97	46,103.50	475.29	98	42,707.14	435.79
Washington — Puget sound.	166	49,776.15	299.86	177	42,120.37	237.97	165	49,460.60	299.76	191	64,724.07	338.87	214	69,538.93	324.95

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 31.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	305	110,414.61	362.02	310	112,434.54	362.69	326	120,434.94	369.43	349	134,435.75	385.20	384	146,561.82	381.67
California	171	75,965.35	444.24	168	75,336.06	448.43	170	75,385.21	443.44	185	87,293.86	471.86	185	97,377.34	526.36
San Diego	2	147.94	73.97	2	147.94	73.97	5	255.23	51.05	5	622.63	124.53	4	209.31	52.33
Wilmington										3	533.90	177.97	3	533.90	177.97
San Francisco	169	75,817.41	448.62	166	75,188.12	452.94	165	75,129.98	455.33	174	85,961.13	494.03	169	95,620.02	565.80
Humboldt										3	176.20	58.73	9	1,014.11	112.68
Oregon	91	28,808.00	316.57	98	31,761.16	324.09	106	39,380.46	371.51	102	39,155.01	383.87	121	40,182.07	332.08
Southern Oregon ..	12	662.09	55.17	12	661.17	55.10	12	660.95	55.08	12	706.15	58.85	11	866.34	78.76
Yaquina													5	1,295.29	259.06
Oregon	17	1,037.86	61.05	18	1,399.90	77.77	20	1,521.21	76.06	22	1,686.07	76.64	30	2,107.43	70.25
Willamette	62	27,103.05	437.23	68	29,700.09	436.77	74	37,193.30	502.68	68	36,762.79	540.63	75	35,913.01	478.84
Washington — Puget sound.	43	5,641.26	131.19	44	5,337.32	121.30	50	5,669.27	113.39	62	7,986.88	128.82	78	9,002.41	115.42
CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	402	153,808.04	382.61	416	156,320.30	375.77	426	160,139.75	375.91	459	168,268.58	366.60	517	180,496.04	349.12
California	194	101,757.24	524.52	198	103,591.98	523.19	203	111,049.41	547.04	225	115,976.96	515.45	249	122,405.03	491.59
San Diego	2	120.58	60.29	2	34.16	17.08	4	443.45	110.86	7	1,088.50	155.50	8	1,136.01	142.00
Wilmington	3	236.55	78.85	3	307.93	102.64	3	307.93	102.64	5	580.95	116.19	7	880.64	127.09
San Francisco	180	100,386.00	557.70	183	102,178.08	558.35	187	109,606.65	586.13	204	113,725.12	557.48	222	119,177.69	536.84
Humboldt	9	1,014.11	112.68	10	1,071.81	107.18	9	691.38	76.82	9	582.39	64.71	12	1,201.69	100.14
Oregon	129	42,626.54	330.44	132	42,517.08	322.10	137	38,697.60	282.46	136	40,616.88	298.65	148	39,543.21	267.18
Southern Oregon ..	12	1,417.39	118.12	11	608.31	55.30	11	538.08	48.92	12	548.10	45.68	13	660.65	50.82
Yaquina	5	1,307.39	261.48	6	1,406.59	234.43	10	3,332.84	333.28	9	2,202.75	244.75	11	2,360.85	214.62
Oregon	35	2,320.26	66.29	34	2,161.17	63.56	33	2,318.73	70.26	34	2,188.38	64.36	40	3,003.96	75.10
Willamette	77	37,581.50	488.07	81	38,341.01	473.35	83	32,507.95	391.66	81	35,677.65	440.46	84	33,517.75	399.02
Washington — Puget sound.	79	9,424.26	119.29	86	10,211.24	118.74	86	10,392.74	120.85	98	11,674.74	119.13	120	18,547.80	154.37

TRANSPORTATION ON THE PACIFIC COAST.

COMPARATIVE STATISTICS—Continued.

TABLE 32.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.	
		Total.	Average.		Total.	Average.		Total.	Average.		Total.	Average.		Total.	Average.
Total	752	148,400.41	197.34	748	153,940.98	212.49	772	167,351.44	216.78	812	186,536.21	229.72	818	187,626.99	229.37
California	652	117,970.52	180.94	639	119,392.10	186.84	656	127,562.38	194.45	699	142,874.40	204.40	690	136,062.88	197.19
San Diego	15	827.32	55.15	19	906.00	47.68	22	2,812.94	127.86	17	735.33	43.25	10	135.14	13.51
Wilmington										6	537.74	89.62	8	888.64	111.08
San Francisco	637	117,143.20	183.90	620	118,486.10	191.11	634	124,749.44	196.77	668	139,903.38	209.44	654	132,053.04	201.92
Humboldt										8	1,697.95	212.24	18	2,086.06	165.80
Oregon	38	7,041.33	185.30	37	6,906.41	186.66	43	8,386.08	195.03	35	7,866.70	224.76	42	10,616.41	252.77
Southern Oregon															
Oregon	29	1,322.93	45.62	26	870.14	33.47	30	2,249.59	74.99	24	1,746.37	72.77	27	1,780.02	65.93
Willamette	9	5,718.40	635.38	11	6,036.27	548.75	13	6,136.49	472.04	11	6,120.33	556.39	15	8,836.39	589.09
Washington — Puget sound.	62	23,388.56	377.23	72	32,642.47	453.37	73	31,402.98	430.18	78	35,795.11	458.91	86	40,947.70	476.14

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.	
		Total.	Average.		Total.	Average.		Total.	Average.		Total.	Average.		Total.	Average.
Total	840	200,320.54	238.49	829	184,766.45	222.88	783	189,701.85	242.28	826	224,031.62	272.31	841	248,429.78	295.40
California	706	149,385.36	211.59	687	144,540.95	210.39	661	143,042.88	216.40	692	165,154.87	238.66	708	191,822.05	270.94
San Diego	9	260.39	28.93	11	168.84	15.35	17	2,076.19	122.13	24	1,079.12	44.96	22	494.91	22.50
Wilmington	9	595.38	66.15	10	611.77	61.18	12	1,429.71	119.14	13	2,017.46	155.19	12	681.04	56.75
San Francisco	674	146,490.05	217.34	650	141,235.09	217.29	616	137,093.00	222.55	633	157,338.07	248.56	658	187,000.65	284.20
Humboldt	14	2,039.54	145.68	16	2,524.65	157.79	16	2,443.98	152.75	22	4,720.22	214.56	16	3,645.45	227.84
Oregon	47	10,592.29	225.37	51	8,316.37	163.07	43	7,591.11	176.54	41	6,727.42	164.08	40	5,721.94	143.05
Southern Oregon	2	136.80	68.40	3	154.76	51.59	1	16.31	16.31				2	118.46	59.23
Oregon	31	1,793.29	57.85	34	655.03	19.27	32	1,033.76	32.31	33	2,274.55	68.93	32	2,387.07	74.60
Willamette	14	8,662.20	618.73	14	7,506.58	536.18	10	6,541.04	654.10	8	4,452.87	556.61	6	3,216.41	536.07
Washington — Puget sound.	87	40,351.80	463.81	91	31,909.13	350.65	79	39,067.86	494.53	93	53,049.33	570.42	93	50,885.79	547.16

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 33.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL UNRIGGED CRAFT REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	67	11,986.73	178.91	70	13,050.08	186.43	68	12,980.45	190.89	8	5,972.98	746.62			
San Francisco, California.	61	8,178.43	134.07	61	8,178.43	134.07	61	8,178.43	134.07						
Willamette, Oregon....	6	3,808.30	634.72	8	4,833.22	604.15	7	4,802.02	686.00	8	5,972.98	746.62			
Puget sound, Washing-ton.				1	38.43	38.43									

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62	9	6,078.32	675.37
San Francisco, California.															
Willamette, Oregon....	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62
Puget sound, Washing-ton.													1	105.34	105.34

TABLE 34.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF ALL CRAFT AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	FLUCTUATIONS IN NUMBER.									FLUCTUATIONS IN TONNAGE.								
	Annual average number of vessels registered.	Highest above average.		Lowest below average.		Closest to average.		Fluc-tuation in num-ber.	Annual average regis-tered tonnage.	Highest above average.		Lowest below average.		Closest to average.		Fluc-tuation in ton-nage.		
		Year.	Num-ber.	Year.	Num-ber.	Year.	Num-ber.			Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.			
Total	1,217	1889	1,367	1880	1,124	1887	1,217	243	341,429	1889	435,004	1880	270,802	1886	347,060	164,202		
California	892	1889	957	1837	864	1882	887	93	242,848	1889	314,227	1880	202,114	1886	248,133	112,113		
San Diego	21	1888	31	1885	11	1881	21	20	1,370	1882	3,068	1886	203	1883	1,358	2,865		
Wilmington	14	1889	19	1883	9	1886	13	10	1,450	1888	2,598	1885	832	1884	1,423	1,766		
San Francisco	845	1889	880	1887	803	1881	847	77	237,882	1889	306,178	1880	201,139	1886	243,414	105,039		
Humboldt	24	1888	31	1883	11	1887	25	20	3,687	1888	5,303	1883	1,874	1886	3,596	3,429		
Oregon	169	1889	196	1880	135	1884	163	61	51,234	1885	59,192	1880	39,658	1889	51,238	19,534		
Southern Oregon	13	1889	15	1884	11	1880	12	4	776	1885	1,554	1888	548	1889	779	1,006		
Yaquina	8	1889	11	1884	5	1888	9	6	1,984	1887	3,333	1884	1,293	1888	2,203	2,038		
Oregon	58	1889	72	1881	44	1884	57	28	3,586	1889	5,391	1881	2,270	1883	3,432	3,121		
Willamette	93	1886	103	1880	77	1882	94	26	45,682	1885	52,217	1880	36,635	1888	46,104	15,582		
Washington—Puget sound ..	156	1889	214	1880	105	1884	164	109	47,347	1889	69,539	1880	29,030	1887	49,461	49,509		

COMPARATIVE STATISTICS—Continued.

TABLE 35.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF STEAMERS AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	FLUCTUATIONS IN NUMBER.							FLUCTUATIONS IN TONNAGE.								
	Annual average number of vessels registered.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in number.	Annual average registered tonnage.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in tonnage.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	
Total	389	1889	517	1880	305	1884	384	212	144,331	1889	180,496	1880	110,415	1884	146,562	70,681
California	195	1889	249	1881	168	1885	194	81	96,614	1889	122,405	1881	75,336	1884	97,377	47,009
San Diego	4	1889	8	1880	2	1884	4	6	421	1889	1,136	1886	34	1887	443	1,102
Wilmington	4	1889	7	1883	3	1883	3	4	484	1889	890	1885	237	1883	534	653
San Francisco	182	1889	222	1882	165	1886	183	57	95,279	1889	110,178	1882	75,130	1884	95,620	44,048
Humboldt	9	1889	12	1883	3	1884	9	9	822	1889	1,202	1883	176	1887	691	1,026
Oregon	120	1889	148	1880	91	1884	121	57	38,329	1885	42,627	1880	28,808	1887	38,698	13,819
Southern Oregon	12	1889	13	1884	11	1880	12	2	733	1885	1,417	1887	538	1883	706	879
Yaquina	8	1889	11	1884	5	1888	9	6	1,984	1887	3,333	1884	1,205	1883	2,203	2,038
Oregon	28	1889	40	1880	17	1884	30	23	1,974	1889	3,004	1880	1,038	1884	2,107	1,966
Willamette	75	1889	84	1880	62	1884	75	22	34,431	1886	38,341	1880	27,108	1889	33,518	11,233
Washington—Puget sound ..	75	1889	120	1880	43	1884	78	77	9,389	1889	18,548	1881	5,337	1885	9,424	13,211

TABLE 36.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF SAILING VESSELS AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	FLUCTUATIONS IN NUMBER.							FLUCTUATIONS IN TONNAGE.								
	Annual average number of vessels registered.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in number.	Annual average registered tonnage.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in tonnage.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	
Total	802	1889	841	1881	748	1883	812	93	189,702	1889	248,430	1880	148,400	1887	189,702	100,030
California	679	1889	708	1881	639	1886	687	69	143,781	1889	191,822	1880	117,971	1887	143,043	73,851
San Diego	17	1888	24	1885	9	1883	17	15	950	1882	2,813	1884	135	1881	906	2,678
Wilmington	10	1888	13	1883	6	1886	10	7	966	1888	2,017	1883	538	1884	880	1,479
San Francisco	644	1885	674	1887	616	1886	650	58	140,149	1889	187,001	1880	117,143	1883	139,903	69,858
Humboldt	16	1888	22	1883	8	1886	16	14	2,865	1888	4,720	1883	1,608	1884	2,986	3,022
Oregon	42	1886	51	1883	35	1884	42	16	7,977	1884	10,616	1880	5,722	1883	7,867	4,894
Southern Oregon	2	1886	3	1887	1	1885	2	2	107	1886	155	1887	16	1889	118	139
Oregon	30	1886	34	1883	24	1882	30	10	1,611	1889	2,387	1886	655	1883	1,746	1,732
Willamette	11	1884	15	1889	6	1881	11	9	6,323	1884	8,836	1889	3,216	1882	6,136	5,620
Washington—Puget sound ..	81	1888	93	1880	62	1887	79	31	37,944	1888	53,049	1880	23,389	1887	39,008	29,600

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF UNRIGGED CRAFT AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	FLUCTUATIONS IN NUMBER.							FLUCTUATIONS IN TONNAGE.								
	Annual average number of vessels registered.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in number.	Annual average registered tonnage.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in tonnage.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	
Total.....	28	1881	70	1883	8	1880	9	02	8,218	1881	13,050	1883	5,973	1889	6,078	7,077
San Francisco.....	61								8,178							
Willamette, Oregon.....	8			1880	6	1881	8	2	5,476	1883	5,973	1880	3,808	1883	5,973	2,165
Puget sound, Washington...	1								72	1889	105	1881	38	1889	105	67

TABLE 38.—SHIPBUILDING FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT BUILT IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

1880.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	41	8,943.04	25	7,642.61	15	937.44	1	362.99
California—San Francisco.....	18	5,795.16	7	4,948.85	11	846.31		
Oregon.....	16	2,465.56	13	2,027.40	2	75.17	1	362.99
Southern Oregon.....	2	56.33	1	5.43	1	50.90		
Oregon.....	2	46.84	1	22.57	1	24.27		
Willamette.....	12	2,362.39	11	1,999.40			1	362.99
Washington—Puget sound.....	7	632.32	5	666.36	2	15.96		

1881.

Total.....	58	11,417.49	21	3,010.41	35	7,382.15	2	1,024.93
California—San Francisco.....	26	4,555.70	5	1,358.62	21	3,197.08		
Oregon.....	22	4,330.89	13	1,616.50	7	1,689.46	2	1,024.93
Southern Oregon.....	1	388.50			1	388.59		
Oregon.....	4	303.41	2	280.74	2	22.67		
Willamette.....	17	3,638.89	11	1,335.76	4	1,278.20	2	1,024.93
Washington—Puget sound.....	10	2,530.90	3	35.29	7	2,495.61		

1882.

Total.....	74	15,770.52	28	6,727.35	46	9,043.17		
California.....	36	6,907.62	11	3,620.53	25	3,277.09		
San Diego.....	2	265.90	1	18.56	1	247.34		
San Francisco.....	34	6,731.72	10	3,601.97	24	3,129.75		
Oregon.....	20	4,835.71	10	2,699.81	10	2,135.90		
Southern Oregon.....	6	1,068.29			6	1,068.29		
Oregon.....	6	614.32	4	222.86	2	391.46		
Willamette.....	8	3,153.10	6	2,476.95	2	676.15		
Washington—Puget sound.....	18	3,937.19	7	407.01	11	3,530.18		

TRANSPORTATION ON THE PACIFIC COAST.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE TEN YEARS, ALL CRAFT, 1880-1889—Continued.

1883.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	91	16,737.97	34	4,019.17	56	11,547.84	1	1,170.96
California	52	9,047.47	11	2,408.96	41	6,638.51		
San Diego	1	12.29			1	12.29		
San Francisco	46	8,168.09	11	2,408.96	35	5,759.13		
Humboldt	5	867.09			5	867.09		
Oregon	20	3,739.99	14	878.09	5	1,690.94	1	1,170.96
Southern Oregon	5	1,421.51	1	58.74	4	1,362.77		
Oregon	11	2,061.60	9	562.47	1	328.17	1	1,170.96
Willamette	4	256.88	4	256.88				
Washington—Puget sound	19	3,950.51	9	732.12	10	3,218.39		

1884.

Total	84	10,612.36	42	5,865.99	42	4,746.37		
California	39	6,300.99	13	3,963.79	26	2,337.20		
San Diego	3	31.94			3	31.94		
San Francisco	30	5,037.04	12	3,889.32	18	1,156.72		
Humboldt	6	1,232.01	1	83.47	5	1,148.54		
Oregon	24	1,659.40	15	976.93	9	682.47		
Southern Oregon	3	503.34	1	104.50	2	398.84		
Oregon	11	433.13	6	317.01	5	116.12		
Willamette	10	722.93	8	555.42	2	167.51		
Washington—Puget sound	21	2,651.97	14	925.27	7	1,726.70		

1885.

Total	73	11,001.23	38	8,867.37	35	2,133.91		
California	37	6,052.09	14	4,764.02	23	1,288.07		
Wilmington	1	29.64			1	29.64		
San Francisco	34	5,730.89	14	4,764.02	20	966.87		
Humboldt	2	291.56			2	291.56		
Oregon	23	3,373.06	16	3,075.35	7	297.71		
Southern Oregon	5	439.14	2	208.91	3	230.23		
Oregon	8	380.53	5	347.61	3	32.92		
Willamette	10	2,553.39	9	2,518.83	1	34.50		
Washington—Puget sound	13	1,576.13	8	1,028.00	5	548.13		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE TEN YEARS, ALL CRAFT, 1880-1889—Continued.

1886.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	58	5,913.92	23	3,023.31	35	2,890.61		
California.....	29	3,084.22	9	2,039.24	20	1,044.98		
San Diego.....	2	26.12			2	26.12		
San Francisco.....	25	2,855.14	8	1,981.54	17	873.60		
Humboldt.....	2	202.96	1	57.70	1	145.26		
Oregon.....	16	1,351.49	9	624.86	7	726.63		
Southern Oregon.....	2	610.16			2	610.16		
Oregon.....	5	136.40	1	33.02	4	103.38		
Willamette.....	9	604.93	8	591.84	1	13.09		
Washington—Puget sound.....	13	1,478.21	5	359.21	8	1,119.00		

1887.

Total	71	9,106.24	32	3,750.45	39	5,355.79		
California.....	36	4,388.04	12	2,241.14	24	2,146.90		
San Diego.....	1	8.28			1	8.28		
San Francisco.....	33	3,758.45	12	2,241.14	21	1,517.31		
Humboldt.....	2	621.31			2	621.31		
Oregon.....	13	1,227.17	14	1,117.48	2	109.69		
Southern Oregon.....	3	263.10	2	174.27	1	88.83		
Yaquina.....	1	65.49	1	65.49				
Oregon.....	6	341.68	5	320.77	1	20.86		
Willamette.....	6	556.95	6	556.95				
Washington—Puget sound.....	19	3,491.03	6	391.83	13	3,099.20		

1888.

Total	104	21,956.43	55	12,710.22	48	9,140.87	1	105.34
California.....	60	11,490.77	28	8,683.04	32	2,807.73		
San Diego.....	6	793.03	4	745.80	2	47.23		
Wilmington.....	3	75.24	1	36.48	2	38.76		
San Francisco.....	47	9,687.31	22	7,891.60	25	1,795.71		
Humboldt.....	4	935.19	1	9.16	3	926.03		
Oregon.....	23	4,702.19	17	3,141.59	6	1,560.60		
Southern Oregon.....	3	651.75	2	154.89	1	496.86		
Yaquina.....	1	91.56	1	91.56				
Oregon.....	10	1,302.33	5	238.59	5	1,063.74		
Willamette.....	9	2,656.55	9	2,656.55				
Washington—Puget sound.....	21	5,763.47	10	885.59	10	4,772.54	1	105.34

TRANSPORTATION ON THE PACIFIC COAST.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE TEN YEARS, ALL CRAFT, 1880-1889—Continued.

1889.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	110	17,909.48	71	12,734.30	39	5,175.18		
California	55	9,497.96	34	7,790.70	21	1,707.26		
San Diego	2	38.50			2	38.59		
San Francisco	48	8,606.65	31	7,551.16	17	1,055.49		
Humboldt	5	852.72	3	239.54	2	613.18		
Oregon	30	4,159.91	21	2,873.36	9	1,286.55		
Southern Oregon	4	1,169.82			4	1,169.82		
Yaquina	3	220.11	3	220.11				
Oregon	13	544.42	8	427.69	5	116.73		
Willamette	10	2,225.56	10	2,225.56				
Washington—Puget sound	25	4,251.61	16	2,070.24	9	2,181.37		

RECAPITULATION FOR THE TEN YEARS.

	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for 10 years.....	764	129,368.73	369	68,351.18	390	58,353.33	5	2,664.22
1880.....	41	8,943.04	25	7,642.61	15	937.44	1	362.99
1881.....	58	11,417.49	21	3,010.41	35	7,382.15	2	1,024.93
1882.....	74	15,770.52	28	6,727.35	46	9,043.17		
1883.....	91	16,737.97	34	4,019.17	56	11,547.84	1	1,170.96
1884.....	84	10,612.36	42	5,865.99	42	4,746.37		
1885.....	73	11,001.23	38	8,867.37	35	2,133.91		
1886.....	58	5,913.92	23	3,023.31	25	2,890.61		
1887.....	71	9,106.24	32	3,750.45	39	5,355.79		
1888.....	104	21,956.43	55	12,710.22	48	9,140.87	1	105.34
1889.....	110	17,909.48	71	12,734.30	39	5,175.18		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 39.—SHIPBUILDING FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS BUILT IN EACH CUSTOMS DISTRICT OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, CLASSIFIED AS PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS.

1880.

CUSTOMS DISTRICTS.	METHODS OF PROPULSION.							
	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	25	7,642.61	10	402.48	9	5,804.35	6	1,435.78
California—San Francisco	7	4,948.85	4	264.26	2	4,630.01	1	54.58
Oregon	13	2,027.40	4	75.52	6	701.68	3	1,250.20
Southern Oregon	1	5.43	1	5.43				
Oregon	1	22.57	1	22.57				
Willamette	11	1,999.40	2	47.52	6	701.68	3	1,250.20
Washington—Puget sound	5	666.36	2	62.70	1	472.66	2	131.00

1881.

Total	21	3,010.41	10	887.12	4	325.06	7	1,798.23
California—San Francisco	5	1,358.62	3	422.08			2	936.54
Oregon	13	1,616.50	4	420.75	4	325.06	5	861.69
Oregon	2	280.74	1	23.06			1	257.68
Willamette	11	1,335.76	3	406.69	4	325.06	4	604.01
Washington—Puget sound	3	35.29	3	35.29				

1882.

Total	28	6,727.35	15	3,915.90	3	253.10	10	2,558.35
California	11	3,620.53	8	3,442.91	2	163.33	1	14.29
San Diego	1	18.56			1	18.56		
San Francisco	10	3,001.97	8	3,442.91	1	144.77	1	14.29
Oregon	10	2,699.81	3	286.09	1	89.77	6	2,323.95
Oregon	4	222.86	2	25.38			2	197.48
Willamette	6	2,476.95	1	260.71	1	89.77	4	2,126.47
Washington—Puget sound	7	407.01	4	186.90			3	220.11

1883.

Total	34	4,019.17	27	3,097.03			7	922.14
California—San Francisco	11	2,408.96	10	2,375.23			1	33.73
Oregon	14	878.09	11	438.23			3	439.86
Southern Oregon	1	58.74	1	58.74				
Oregon	9	562.47	7	290.29			2	272.18
Willamette	4	256.88	3	89.20			1	167.68
Washington—Puget sound	9	732.12	6	283.57			3	448.55

TRANSPORTATION ON THE PACIFIC COAST.

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COMPARATIVE STATISTICS—Continued.

TABLE 39.—SHIPBUILDING FOR THE TEN YEARS, STEAMERS, 1880-1889—Continued.

1884.

CUSTOMS DISTRICTS.	METHODS OF PROPULSION.							
	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	42	5,865.99	24	1,428.00	6	2,583.37	12	1,854.62
California.....	13	3,963.79	7	860.66	2	2,182.37	4	920.76
San Francisco	12	3,880.32	7	860.66	2	2,182.37	3	837.29
Humboldt	1	83.47					1	83.47
Oregon	15	976.93	10	370.06	4	401.00	1	205.87
Southern Oregon	1	104.50	1	104.50				
Oregon	6	317.01	5	111.14			1	205.87
Willamette	8	555.42	4	154.42	4	401.00		
Washington—Puget sound	14	925.27	7	197.28			7	727.96

1885.

Total	38	8,867.37	22	3,219.04	5	2,998.51	11	2,649.82
California—San Francisco	14	4,764.02	8	1,773.89	1	1,257.14	5	1,732.99
Oregon	16	3,075.35	10	978.35	3	1,685.64	3	411.36
Southern Oregon	2	208.91	2	208.91				
Oregon	5	347.61	4	317.08			1	30.53
Willamette	9	2,518.83	4	452.36	3	1,685.64	2	380.83
Washington—Puget sound	8	1,028.00	4	466.80	1	55.73	3	505.47

1886.

Total	23	3,023.31	13	1,145.71			10	1,877.60
California	9	2,039.24	4	818.74			5	1,220.50
San Francisco	8	1,981.54	4	818.74			4	1,162.80
Humboldt	1	57.70					1	57.70
Oregon	9	624.86	6	155.88			3	468.98
Oregon	1	33.02	1	33.02				
Willamette	8	591.84	5	122.86			3	468.96
Washington—Puget sound	5	359.21	3	171.09			2	188.12

1887.

Total	32	3,750.45	26	2,720.48	2	347.62	4	682.35
California—San Francisco	12	2,241.14	11	1,032.60	1	308.54		
Oregon.....	14	1,117.48	11	621.26	1	39.03	2	457.14
Southern Oregon	2	174.27	2	174.27				
Yaquina	1	65.49	1	65.49				
Oregon.....	5	320.77	5	320.77				
Willamette	6	556.95	3	60.73	1	39.03	2	457.14
Washington—Puget sound	6	391.83	4	166.62			2	225.21

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 39.—SHIPBUILDING FOR THE TEN YEARS, STEAMERS, 1880-1889—Continued.

1888.

CUSTOMS DISTRICTS.	METHODS OF PROPULSION.							
	All steamers.		Propeller.		Side-wheel.		Stern-wheel	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	55	12,710.22	43	7,749.66	3	2,427.60	9	2,532.96
California.....	28	8,683.04	27	6,668.59	1	2,014.45		
San Diego.....	4	745.80	4	745.80				
Wilmington.....	1	36.48	1	36.48				
San Francisco.....	22	7,891.60	21	5,877.15	1	2,014.45		
Humboldt.....	1	9.16	1	9.16				
Oregon.....	17	3,141.59	9	710.48	1	316.46	7	2,114.65
Southern Oregon.....	2	154.89	2	154.89				
Yaquina.....	1	91.56	1	91.56				
Oregon.....	5	238.59	3	120.21			2	118.38
Willamette.....	9	2,656.55	3	343.82	1	316.46	5	1,096.27
Washington—Puget sound.....	10	885.59	7	370.59	1	96.69	2	418.31

1889.

Total.....	71	12,734.30	51	7,163.33	5	1,393.61	15	4,177.36
California.....	34	7,790.70	27	5,914.72	1	119.72	6	1,756.26
San Francisco.....	31	7,551.16	26	5,904.55	1	119.72	4	1,526.89
Humboldt.....	3	239.54	1	10.17			2	229.37
Oregon.....	21	2,873.36	15	701.49	1	659.41	5	1,512.46
Yaquina.....	3	220.11	3	220.11				
Oregon.....	8	427.69	7	329.62			1	98.07
Willamette.....	10	2,225.56	5	151.76	1	659.41	4	1,414.39
Washington—Puget sound.....	16	2,070.24	9	547.12	3	614.48	4	908.64

RECAPITULATION FOR THE TEN YEARS.

Total for 10 years.....	369	68,351.18	241	31,728.75	37	16,133.22	91	20,480.21
1880.....	25	7,642.61	10	402.48	9	5,804.35	6	1,435.78
1881.....	21	3,010.41	10	887.12	4	325.06	7	1,798.23
1882.....	28	6,727.35	15	3,915.90	3	253.10	10	2,558.35
1883.....	34	4,019.17	27	3,097.03			7	922.14
1884.....	42	5,865.99	24	1,428.00	6	2,583.37	12	1,854.62
1885.....	38	8,867.37	22	3,219.04	5	2,998.51	11	2,649.82
1886.....	23	3,023.31	13	1,145.71			10	1,877.60
1887.....	32	3,750.45	26	2,720.48	2	347.02	4	682.35
1888.....	55	12,710.22	43	7,749.66	3	2,427.60	9	2,532.96
1889.....	71	12,734.30	51	7,163.33	5	1,393.61	15	4,177.36

TRANSPORTATION ON THE PACIFIC COAST.

CONGRESSIONAL APPROPRIATIONS.

TABLE 40.—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF RIVERS AND HARBORS ON THE PACIFIC COAST, BY PERIODS, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, BY LOCALITIES.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
Total	1852	\$2,315,000	\$5,527,200	\$2,122,000	\$9,964,800
General expenses and surveys.....	1866	50,000			50,000
California	1852	1,158,000	2,283,750	596,500	4,038,250
Oregon	1866	1,107,000	3,164,950	1,493,100	5,765,050
Washington	1880		78,500	33,000	111,500
California:					
Humboldt harbor	1881		80,000		80,000
	1884		62,500		62,500
	1886		75,000		75,000
	1888		125,000		125,000
	1890			80,000	80,000
Total for Humboldt harbor	1881		342,500	80,000	422,500
Oakland harbor.....	1874	415,000			415,000
	1880		120,000		120,000
	1882		200,000		200,000
	1884		139,000		139,000
	1886		60,000		60,000
	1888		350,000		350,000
	1890			250,000	250,000
Total for Oakland harbor	1874	415,000	869,000	250,000	1,534,000
Petaluma river	1880		16,000		16,000
	1882		14,000		14,000
	1888		2,000		2,000
	1890			4,000	4,000
Total for Petaluma river.....	1880		32,000	4,000	36,000
Sacramento and Feather rivers	1875	50,000			50,000
	1880		45,000		45,000
	1881		60,000		60,000
	1882		250,000		250,000
	1884		40,000		40,000
	1888		20,000		20,000
	1890			30,000	30,000
Total for Sacramento and Feather rivers	1875	50,000	415,000	30,000	495,000
San Diego harbor and river (survey of San Diego and Newport)	1852	111,000			111,000
	1886		5,000		5,000
	1888		1,000		1,000
	1890			60,500	60,500
Total for San Diego harbor and river.....	1852	111,000	6,000	60,500	177,500
San Francisco harbor.....	1872	75,000			75,000
	1886		11,000		11,000
Total for San Francisco harbor	1872	75,000	11,000		86,000
San Joaquin river	1876	20,000			20,000
	1880		20,000		20,000
	1881		30,000		30,000
	1884		20,000		20,000
	1886		18,750		18,750
	1888		25,000		25,000
	1890			75,000	75,000
Total for San Joaquin river.....	1876	20,000	163,750	75,000	258,750
San Luis Obispo harbor.....	1888		25,000		25,000
	1890			40,000	40,000
Total for San Luis Obispo harbor	1888		25,000	40,000	65,000

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 40.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
California—Continued.					
Wilmington harbor.....	1879	\$487,000			\$487,000
	1880		\$35,000		35,000
	1881		33,000		33,000
	1882		100,000		100,000
	1884		50,000		50,000
	1886		75,000		75,000
	1888		90,000		90,000
	1890			\$34,000	34,000
Total for Wilmington harbor.....	1879	487,000	383,000	34,000	904,000
Mokelumne river.....	1884		8,500		8,500
	1886		2,500		2,500
	1888		2,000		2,000
Total for Mokelumne river.....	1884		13,000		13,000
Napa river.....	1888		7,500		7,500
	1890			10,000	10,000
Total for Napa river.....	1888		7,500	10,000	17,500
Redwood harbor.....	1884		3,000		3,000
	1886		5,000		5,000
	1888		7,400		7,400
Deep water harbor survey (\$5,000).....	1890			13,000	13,000
Total for Redwood harbor.....	1884		15,400	13,000	28,400
Total for Humboldt harbor.....	1881		342,500	80,000	422,500
Total for Oakland harbor.....	1874	415,000	869,600	250,000	1,534,600
Total for Petaluma river.....	1880		32,000	4,000	36,000
Total for Sacramento and Feather rivers.....	1875	50,000	415,000	30,000	495,000
Total for San Diego harbor and river.....	1852	111,000	6,000	60,500	177,500
Total for San Francisco harbor.....	1872	75,000	11,000		86,000
Total for San Joaquin river.....	1876	20,000	163,750	75,000	258,750
Total for San Luis Obispo harbor.....	1888		25,000	40,000	65,000
Total for Wilmington harbor.....	1879	487,000	383,000	34,000	904,000
Total for Mokelumne river.....	1884		13,000		13,000
Total for Napa river.....	1888		7,500	10,000	17,500
Total for Redwood harbor.....	1884		15,400	13,000	28,400
Total for California.....	1852	1,158,000	2,283,750	596,500	4,038,250
Oregon:					
Coos bay.....	1879	40,000			40,000
	1881		90,600		90,600
	1886		33,750		33,750
	1886		50,000		50,000
	1890			125,000	125,000
Total for Coos bay.....	1879	40,000	173,750	125,000	338,750
Willamette (upper) and Yamhill.....	1871	84,500			84,500
	1880		12,000		12,000
	1881		15,000		15,000
	1882		5,000		5,000
	1884		10,000		10,000
	1886		10,000		10,000
	1888		29,000		29,000
	1890			11,000	11,000
Total for Willamette and Yamhill.....	1871	84,500	81,000	11,000	176,500

TRANSPORTATION ON THE PACIFIC COAST.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 40.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total Appropriations up to date.
Oregon—Continued.					
Willamette (lower) and Columbia	1866	\$300,000			\$300,000
	1880		\$45,000		45,000
	1881		45,000		45,000
	1882		100,000		100,000
	1884		100,000		100,000
	1886		75,000		75,000
	1888		100,000		100,000
	1890			\$100,000	100,000
Total for Willamette and Columbia.....	1866	300,000	465,000	100,000	865,000
Total for Willamette and Yamhill.....	1871	84,500	81,000	11,000	176,500
Total for Willamette, Columbia, and Yamhill.....	1866	384,500	546,000	111,000	1,041,500
Columbia (upper) and Snake rivers.....	1872	160,000			160,000
	1880		15,000		15,000
	1881		15,000		15,000
	1882		6,000		6,000
	1884		20,000		20,000
	1886		10,000		10,000
	1888		10,000		10,000
	1890			90,000	90,000
Total for Columbia and Snake rivers.....	1872	160,000	76,000	90,000	326,000
Columbia at Cascades	1876	340,000			340,000
	1880		200,000		200,000
	1882		265,000		265,000
	1884		150,000		150,000
	1886		187,000		187,000
	1888		300,000		300,000
	1890			435,000	435,000
Total for Columbia at Cascades.....	1876	340,000	1,102,000	435,000	1,877,000
Lower Columbia and tributaries.....	1882		500		500
	1884		2,000		2,000
	1888		2,500		2,500
Total for lower Columbia and tributaries.....	1882		5,000		5,000
Lower Columbia at mouth.....	1878	10,000			10,000
	1882		7,500		7,500
	1884		100,000		100,000
	1886		187,500		187,500
	1888		500,000		500,000
	1890			475,000	475,000
Total for lower Columbia at mouth.....	1878	10,000	795,000	475,000	1,280,000
Total for upper Columbia and Snake rivers.....	1872	160,000	76,000	90,000	326,000
Total for Columbia at Cascades.....	1876	340,000	1,102,000	435,000	1,877,000
Total for lower Columbia and tributaries.....	1882		5,000		5,000
Total for Columbia and tributaries.....	1872	510,000	1,978,000	1,000,000	3,488,000
Yaquina bay.....	1880		40,000		40,000
	1881		10,000		10,000
	1882		60,000		60,000
	1884		50,000		50,000
	1886		75,000		75,000
	1888		150,000		150,000
	1890			165,000	165,000
Total for Yaquina bay.....	1880		385,000	165,000	550,000
Tillamook bay.....	1888		5,200		5,200
	1889			500	500
Total for Tillamook bay.....	1888		5,200	500	5,700
Nehalem bay and river.....	1890			10,000	10,000
Harbor of refuge at Port Orford.....	1875	150,000			150,000

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 40.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
Oregon—Continued.					
Coquille river.....	1880		\$30,000		\$30,000
	1886		20,000		20,000
	1888		25,000		25,000
	1890			\$30,000	30,000
Total for Coquille river.....	1880		75,000	30,000	105,000
Umpqua river.....	1871	\$22,500			22,500
	1888		2,000		2,000
Total for Umpqua river.....	1871	22,500	2,000		24,500
Siuslaw river.....	1890			50,000	50,000
Youngs and Klaskanine rivers.....	1890			1,600	1,600
Total for Coos bay.....	1879	40,000	173,750	125,000	338,750
Total for Willamette, Columbia, and Yamhill.....	1866	384,500	546,000	111,000	1,041,500
Total for Columbia and tributaries.....	1872	510,000	1,978,000	1,030,000	3,488,000
Total for Yaquina bay.....	1880		385,000	165,000	550,000
Total for Tillamook bay.....	1888		5,200	500	5,700
Total for Nehalem bay and river.....	1830			10,000	10,000
Total for harbor of refuge at Port Orford.....	1879	150,000			150,000
Total for Coquille river.....	1880		75,000	30,000	105,000
Total for Umpqua river.....	1871	22,500	2,000		24,500
Total for Siuslaw.....	1890			50,000	50,000
Total for Oregon.....	1866	1,107,000	3,164,950	1,493,100	5,765,050
Washington:					
Cowlitz river.....	1880		2,000		2,000
	1881		1,000		1,000
	1882		1,000		1,000
	1884		2,000		2,000
	1885		2,000		2,000
	1888		3,000		3,000
	1890			8,000	8,000
Total for Cowlitz river.....	1880		11,000	8,000	19,000
Tributaries:					
Skagit river.....	1880		2,500		2,500
Skagit and Snohomish rivers.....	1882		20,000		20,000
Stillaguamish, Skagit, and Nooksachk rivers.....	1884		10,000		10,000
Snohomish and Nooksachk rivers.....	1886		10,000		10,000
Skagit, Snohomish, and Nooksachk rivers.....	1888		15,000		15,000
For all rivers.....	1890			12,000	12,000
Total for tributaries.....	1880		57,500	12,000	69,500
Total for Cowlitz river.....	1880		11,000	8,000	19,000
Total for Cowlitz river and tributaries.....	1880		68,500	20,000	88,500
Chehalis river.....	1882		3,000		3,000
	1884		5,000		5,000
	1888		2,000		2,000
	1890			3,000	3,000
Total for Chehalis river.....	1882		10,000	3,000	13,000
Canal from Lake Union to Puget sound.....	1890			10,000	10,000
Total for Cowlitz river and tributaries.....	1880		68,500	20,000	88,500
Total for Chehalis river.....	1882		10,000	3,000	13,000
Total for Washington.....	1880		78,500	33,000	111,500