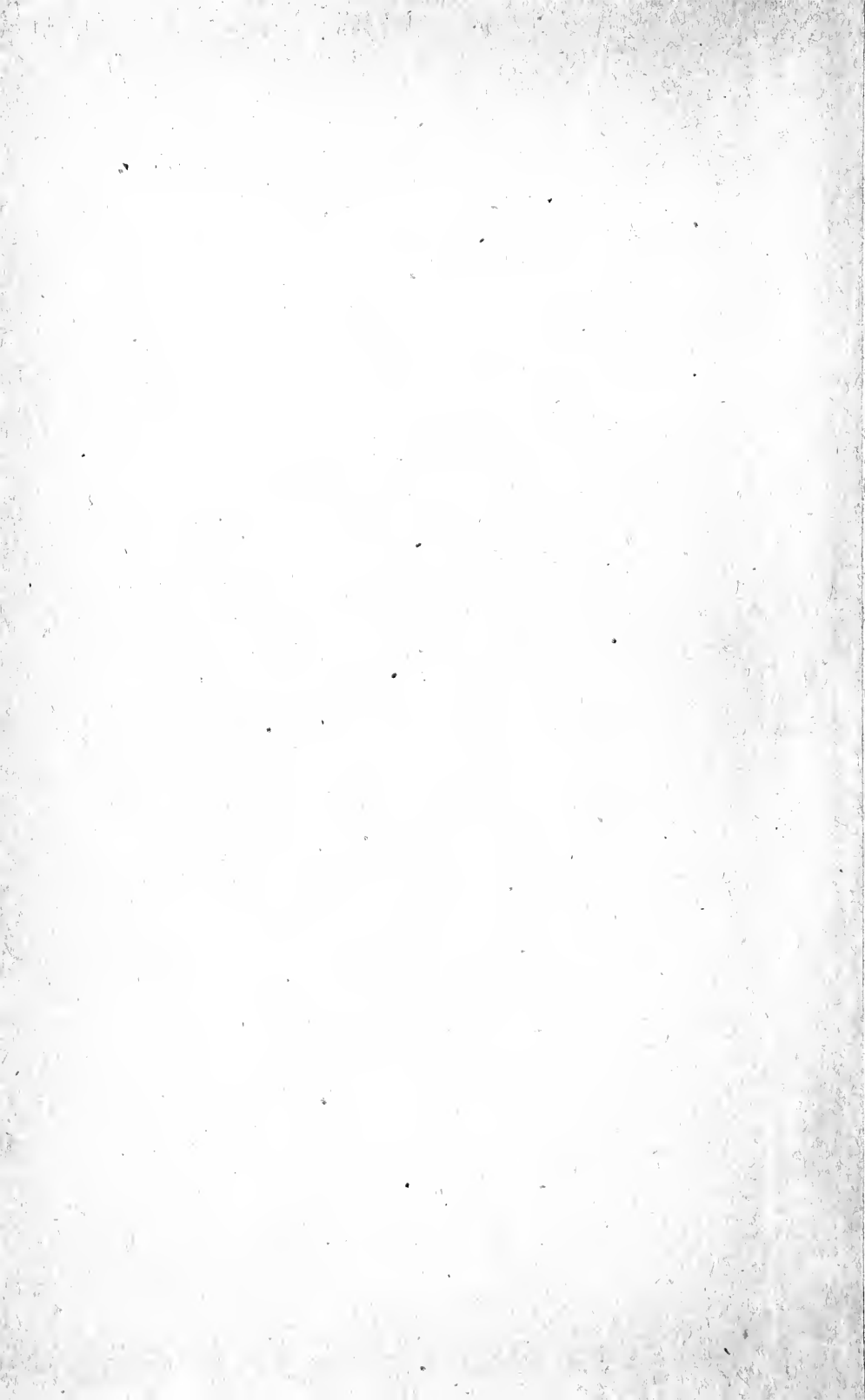


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State of Washington

BUREAU OF STATISTICS AND IMMIGRATION

I. M. HOWELL

SECRETARY OF STATE, EX-OFFICIO COMMISSIONER

Homeseekers' Guide

TO THE

State of Washington

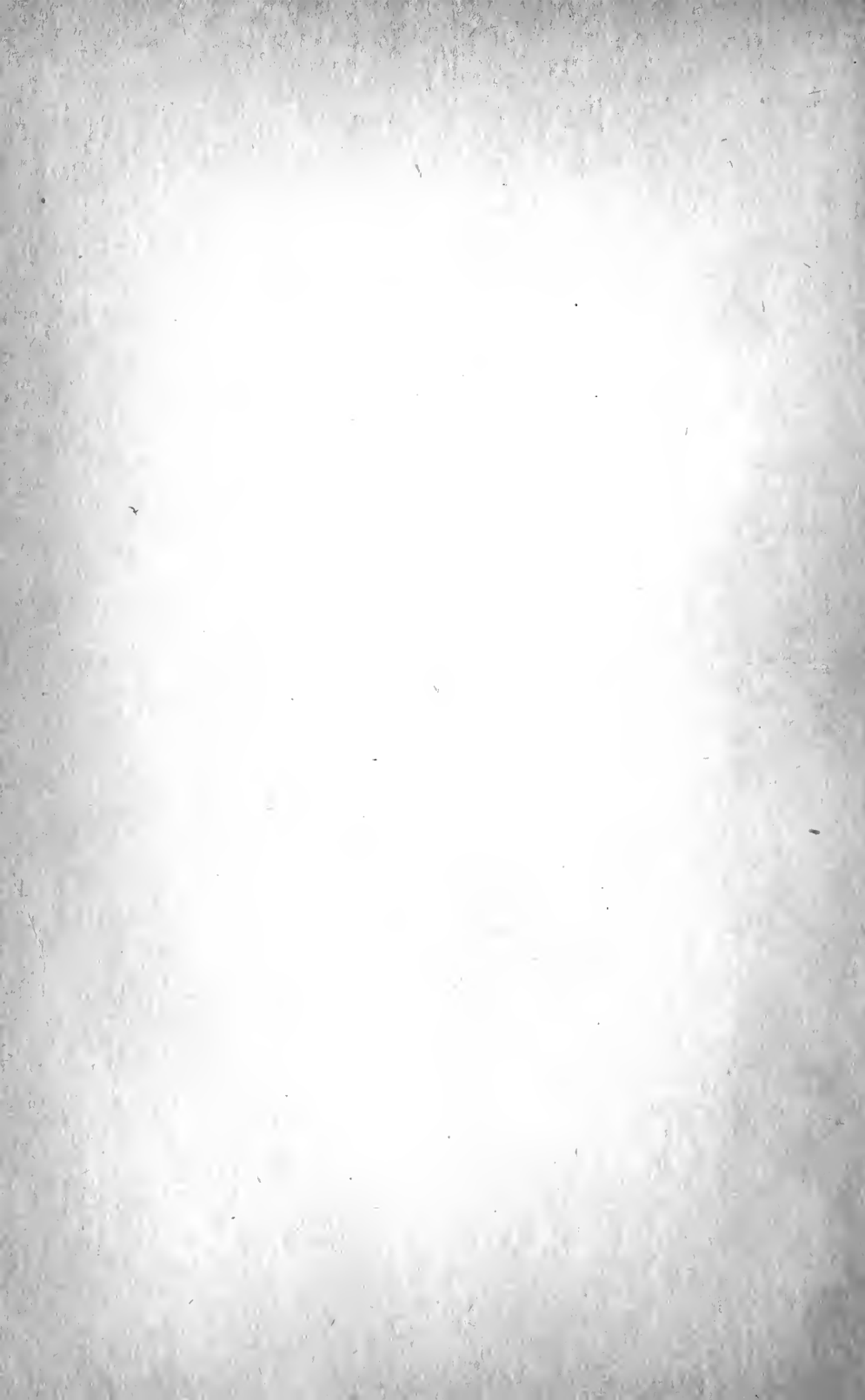


By HARRY F. GILES
Deputy Commissioner

OLYMPIA
FRANK M. LAMBORN  PUBLIC PRINTER
1914

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STATE OF WASHINGTON
DEPARTMENT OF STATE

Bureau of Statistics and Immigration

I. M. HOWELL, Secretary of State
Ex-Officio Commissioner

Homeseekers' Guide

TO THE

STATE OF WASHINGTON

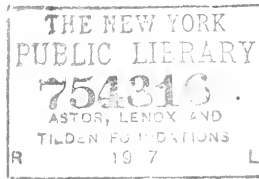
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By **HARRY F. GILES, Deputy Commissioner**

OLYMPIA
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LETTER OF TRANSMITTAL.

OFFICE OF THE
BUREAU OF STATISTICS AND IMMIGRATION.
OLYMPIA, January 20, 1914.

Hon. I. M. Howell, Ex-Officio Commissioner:

SIR: Pursuant to your instructions, I have prepared and have the honor to transmit herewith a report describing in detail the counties, cities and towns of the State of Washington, and entitled the "Homeseekers' Guide." I recommend that an edition of 25,000 copies of this be published for general distribution in connection with the work of this Department.

Respectfully,

H. F. GILES,

Deputy Commissioner.

Approved for publication February 2, 1914.

I. M. HOWELL,

Ex-Officio Commissioner.

FOREWORD.

In exploiting the opportunities of a state so diversified in its resources as the State of Washington, much difficulty would be experienced by attempting to exhaust every important phase of the subject unless a book far more comprehensive than this publication were planned.

The wisdom of large volumes being doubtful, the policy of issuing a number of medium sized ones has been adopted. Each will discuss the advantages of the state from a different standpoint, or will take up some particular branch such as dairying, stock raising, hog raising, intensive farming, logged-off lands, irrigated lands, etc. Another will also be issued paying more attention to the state at large. Everything published will be for free distribution.

In this particular book, which is intended primarily as a guide for the homeseeker, no pictures are shown, as only by such elimination was it possible to hold to the present size without sacrificing some important detail of information. The way for a prospective settler to get the most out of it is to first read carefully the introduction and note in a general way the differences of the various parts of the state; then turn to the description of the group of counties which seem to attract him most. If more information than that contained herein is desired regarding any section, a prompt answer will be received by writing to any of the commercial bodies listed on page 108. This Department also is ready to answer all questions to the best of its ability and to assist anyone in getting the absolute facts regarding the conditions in any section of the state.

In compiling this book the Bureau is indebted to over one thousand contributors, including thirty-nine assessors, 200 secretaries of commercial or civil organizations, 700 postmasters and many other reliable men representing various walks of life, and properly informed regarding their respective communities. All facts have been carefully checked by representatives out in the field, and only such statements made as can be safely defended.

To all these contributors and coworkers, the utmost appreciation is expressed for the willing cooperation which they have so kindly given.

A BRIEF DESCRIPTION OF ENTIRE STATE.

INTRODUCTION.

Nature performed her best work when she created the State of Washington and offered it as a place for the homes of men. Valleys, mountains, plains, lakes, rivers, sea and forests, have conspired to build so that the most whimsical cannot fail to find satisfaction and delight. Within his easy reach have been stored immeasurable resources of unequalled variety, demanding from him who would profit merely the same willing and intelligent effort that is the price for everything worth one's while. At the same time there have been added the master touches of scenic and climatic art without which the highest plane of happiness and contentment can never be reached anywhere. The nearness of the date set for the opening of the Panama Canal and the certainty of the immediate development of the territory of Alaska, have focused the eyes of the world on this favored region, for they who are best informed realize that these two events will wield a decided influence in hastening the already rapid growth of the Pacific coast. He who is contemplating the serious step of changing his present habitation and moving with his family into some other part of the world, should first know something about this "The Evergreen State," and its wonderful possibilities, before deciding whither his course should lie.

AREA AND POPULATION.

A proper understanding of Washington's treasures requires some knowledge of its natural features. It is the most northwesterly section of the United States. Its greatest length from east to west is 360 miles and from north to south 240 miles. Its total area including land and water is 69,180 square miles, just 18,626 square miles greater than Java, containing over 28 million people; nearly half the size of Prussia, containing more than 40 million people; 11,605 square miles more than England and Wales, containing over 36 million people; and nearly equal to the combined area of New York, Maryland and Massachusetts, with a total population close to 14 million. Its total population for 1910 was 1,141,990, representing a gain of 120.4% over that of 1900 and a larger percentage of increase than any other state in the Union. A rapid growth is still taking place.

For every square mile there are about 18 persons. Porto Rico has 325 to the square mile, Rhode Island 508.5 and Belgium 658.58.

NATURAL DIVISIONS.

Its topography is unique and wonderful. The most conspicuous feature is the Cascade mountain range, beginning at the Columbia river on the south and extending almost straight north into British Columbia. The serrated summits of this range vary in altitude the average height being 8,000 feet. The highest peaks are Mt. Rainier (or Mt. Tacoma) 14,408 feet, Mt. Adams 12,307 feet, Mt. Baker 10,827 feet, Glacier Peak 10,436 feet, and Mt. St. Helens 10,000 feet (approximate). These mountains divide the state into practically two distinct parts, commonly known as Eastern Washington and Western Washington. In climate, soil, topography, vegetation, etc., these two sections of the state are quite different.

OKANOGAN HIGHLANDS.

The four northern counties of Eastern Washington constitute the Okanogan Highlands, characterized by a somewhat rolling and sometimes mountainous surface generally covered with pine timber and cut by a number of fertile river valleys, the principal ones of which are the Okanogan, the Methow, the upper Columbia, the Colville, the Pend Oreille and the San Poil. This is one of the newest portions of the state and until recently quite remote on account of the absence of railroads. Several, however, now follow the valleys and a number of extensions are being built or planned for the near future. Nearly all crops common to other parts of eastern Washington grow profusely here.

COLUMBIA PLAIN.

With the exception of a comparatively small area in the southeast corner taken up by the Blue Mountains, also covered with timber, the remainder of this section comprises chiefly the broad Columbia plain, ranging in altitude from 500 to something over 2,000 feet, with the general slope towards the Columbia river. Besides the river valleys, some depressions called coulees and some low hills alternate with vast stretches of level or undulating country. In the south central part of this great plain is the lowest precipitation in the state, between 6 and 8 inches, which gradually increases in all directions until it is 19 inches at Spokane, 18 at Walla Walla, 15 at Wenatchee, 10 at Ellensburg, 18 at Republic, 22 at Goldendale and

29 at Cle Elum. The soil is mainly a decomposed basalt and known as volcanic ash. It is rich in minerals, containing iron, lime, potash and phosphoric acid, in depth varying from one to one hundred feet. The higher portions are devoted chiefly to the raising of grain and this is the country that produces Washington's 50 million bushels of wheat, its 7 million bushels of barley, and a large portion of the 14 million bushels of oats. Washington produces more of oats to the acre than any other state and is excelled by one state only in the production of barley per acre.

IRRIGATED VALLEYS.

The valleys are generally irrigated and devoted to fruits, chiefly apples, peaches and pears, alfalfa, corn, vegetables, and hops. The larger portion of the \$10,000,000.00 apple crop is at present produced in the Yakima and Wenatchee valleys, and their tributaries, the remainder being produced chiefly in Spokane and Okanogan counties, in the Walla Walla valley, and along the Columbia, the Snake, and a number of smaller streams affording irrigation. Spokane and Okanogan counties have about as many trees as Wenatchee and Yakima, but a comparatively small number have as yet come into bearing. Many higher areas produce excellent fruit under practically dry farming conditions. A good example is Klickitat county which has won several prizes for non-irrigated district displays. The raising of corn is a new industry but wherever tried it has met with eminent success. Nearly a million bushels were raised in 1913.

WESTERN WASHINGTON.

The chief features of Western Washington are the Olympic Mountains, enveloping the Olympic Peninsula; the lower Columbia region in the southwest; and the great Puget Sound basin, lying between the two ranges of mountains, towards which it rises by gentle slopes, and containing the inland sea, Puget Sound. Practically all parts were once covered with dense timber and there still remains some of the thickest bodies of timber to be found anywhere in the world. Part of the remainder, particularly that closest to the Sound and the rivers, has been cleared and placed under cultivation, while much more is in the so-called logged-off state. The country, other than the mountains, is made up of valleys, rolling hills, and level plateaus, nearly all of which is fit for agriculture in one form or another. The most prominent soils are clay and sandy loams, intermixed with much alluvial bottom lands, alder bottom and

beaver dams, while in some sections at the deltas of rivers are large areas of dyked tide lands very rich in soil elements. The chief agricultural products here are grasses, oats, root crops (especially potatoes), fruits and berries. For berries and soft fruits Western Washington is probably unexcelled by any part of the world. In certain sections hops and bulbs are specialties. It should be noted in passing that the average yield of hops per acre is greater than in any other state in the Union. It is one of the states that produces most of the hops of the country. The precipitation in all sections of Western Washington is sufficient so that no irrigation is actually needed, although in the case of some gravelly prairie land, as at Sequim or on the prairies of Pierce and Thurston counties, irrigation for a brief period has been found beneficial.

LIVESTOCK, DAIRYING AND POULTRY RAISING.

On account of the readiness with which grasses and root crops grow and because of the exceedingly mild winters enjoyed, nearly all parts of the state are particularly well adapted to the raising of beef cattle, hogs, dairy cows, and poultry. The imports into Washington of the products of these run high into the millions each year. Although they have been neglected in the past, partially on account of the daily attention required, and partially because the people have been too busy reaping easy harvests in other lines, these industries are promising now to yield splendid returns to any persons that like to care for animals. No enterprises in the state have greater possibilities. A complete pamphlet has been prepared on this subject and will be mailed free to any persons interested.

The sheep are raised chiefly in eastern Washington, pasturing in the summer on the foothills and wintering in the warm valleys. In western Washington a considerable number are raised on the San Juan Islands. In 1911, 400,000 sheep produced 3,700,000 lbs. of wool, and in 1912, 3,600,000 lbs., placing Washington first in the average weight per fleece which, in 1911, was 9.25 lbs., and in 1912, 9 lbs.

Horses and mules also do well in any part of the state. Goats are particularly adapted to the western counties.

The report of the state board of equalization for the year 1913 shows the following figures as representing the number and value of every kind of livestock assessed for taxable purposes. The actual value is based on the assessed valuation of 42.44%.

NUMBER AND VALUE OF LIVESTOCK AND POULTRY IN
WASHINGTON FOR YEAR 1913.

(Taken from report of state board of equalization.)

	<i>No.</i>	<i>Assessed value</i>	<i>Actual value</i>
One year old horses.....	29,187	\$479,512	\$1,129,859
Two year old horses.....	25,161	661,155	1,557,858
Three year old horses.....	43,295	1,470,262	3,464,331
Work horses	159,279	8,398,202	19,788,412
Stallions	1,102	223,951	527,688
Mules and asses.....	13,963	702,086	1,654,302
Stock cattle	148,978	2,037,174	4,800,127
Milch cows	149,140	3,904,018	9,198,911
Bulls	5,148	130,049	306,430
Stock, sheep and goats.....	407,577	744,544	1,754,345
Sheep bucks for breeding...	5,208	19,630	46,254
Hogs	132,696	583,634	1,375,198
Poultry .....	.....	526,937	1,241,605
Total		\$19,881,154	\$46,845,320

CLIMATE.

Climate has been briefly discussed in connection with a number of the county descriptions. It might be added in general that in no part of Washington's habitable portions are there wide variations or extremes of temperature, either in summer or in winter. This equability is probably caused partially by the Japan current and the protection afforded by the mountains. Even during the months of July and August, those months that are the dread of so many people in other parts of the world, the temperature in Washington is still even and never excessive. Sunstroke has never been known and the evenings are always cool and conducive to sound slumber so that one awakes in the morning refreshed and ready for the day's work. The eastern Washington climate is considerably dryer than west of the Cascades, while the precipitation in the Puget Sound district is about the same as in the city of Chicago. The lowest precipitation in Western Washington is in the vicinity of Port Townsend and the highest out near the Pacific ocean. Very little snow falls, the precipitation being chiefly in the form of rain. The larger portion falls during the winter months.

The following table shows the precipitation at a few centrally located stations in Western Washington, for which data is complete for the past five years.

	<i>1908</i>	<i>1909</i>	<i>1910</i>	<i>1911</i>	<i>1912</i>
Port Townsend	16.21	18.06	17.40	17.59	19.91
Anacortes	27.90	27.50	28.21	25.93	29.42
Bellingham	25.80	28.89	36.97	30.59	27.42
Centralia	46.64	52.08	55.73	39.35	53.71
Olympia	53.20	61.24	62.96	39.39	59.56
Seattle	28.25	31.72	34.24	21.69	35.14
Tacoma	38.21	44.14	45.42	27.79	43.58
Vancouver	32.77	44.24	38.54	30.85	39.49

The annual normal temperature for western Washington, as deduced from a long period of years, is about 51 degrees; for the country in the vicinity of Spokane about 48 degrees, and near Walla Walla 53 degrees. The lowest monthly normal for the same period in the vicinity of Seattle is 39 degrees, near Spokane 27 degrees, and Walla Walla 33 degrees. The highest monthly normal near Seattle is 64 degrees, Spokane 69 degrees, Walla Walla 74 degrees.

The mean temperature in some localities for the year 1912:

	<i>Lowest monthly.</i>	<i>Highest monthly.</i>	<i>Annual.</i>
Western Washington:			
Aberdeen	40.9	60.4	49.8
Bellingham	39.4	64	51.2
Centralia	40.6	64	51
Olympia	40.6	63.8	50.7
Port Townsend	42	60.7	50.5
Seattle	41.6	63.4	51.5
Tacoma	40.6	63.2	50.9
Vancouver	40.4	66.8	52.8
Eastern Washington:			
Wenatchee (near)	24.1	68.2	47.2
North Yakima	26.6	71.2	50.8
Spokane	26.6	66.6	47.9
Walla Walla	31.2	72.6	53.1
Ellensburg	23	66.5	46.9
Omak	20	69.8	48.6

LUMBER.

The wonderful timber growth, already mentioned, supplies the material for the state's main industry outside of the agricultural and livestock pursuits. Lumber and shingles have been the principal manufactures for many years and probably will for many yet to come. For the past nine years Washington has lead all other states in these products. The yearly output is about 4,000,000,000 board feet, and represents in value 40% of all manufactures. The state has the largest shingle mills in the world and produces about two-thirds of all the shingles produced in the United States. About 1,500 establishments are engaged in these enterprises and employ about 50,000 men. There are altogether about 400 billion feet of timber yet remaining. Reforestation, however, is receiving some attention while a good healthy growth is now helping to make up for the amount cut each year. The principal trees are fir, cedar, hemlock, spruce and yellow pine, with some tamarac in the northeastern counties. By far the largest portion of the timber is in Western Washington, especially on the slopes of the Cascade and Olympic mountains.

The counties of Eastern Washington containing timber are the Okanogan highlands, already noted; the portion of the southeast

comprised by the Blue mountains; the northern part of Spokane county, and the eastern slope of the Cascades. Nearly all the remainder of eastern Washington in its primeval state was covered with sage brush and bunch grass.

OTHER MANUFACTURES.

Manufactures other than timber products include flour mill and grist mill products; slaughter house products; canned or preserved fruits, meats, fish, etc.; foundry and machine shop products; butter, cheese, condensed milk, etc.; the products of breweries; clay products, cement, etc. All manufactures in 1909 amounted to \$220,746,000.00, representing a capital of \$222,261,000.00, and employing 80,118 persons. For 1913 the total value would probably represent upwards of \$300,000,000.00. The unlimited supply of raw material, together with vast water power and coal deposits, promises big possibilities for future development in all lines of manufacturing.

WATER POWER.

The department of engineering of the University of Washington estimates a maximum available water power from the main drainage areas in the state, not including the Snake river, as 13,125,000 H. P. There have thus far been developed only 227,000 H. P. for public service corporations and about 38,000 H. P. for commercial purposes.

WATER POWERS OF THE STATE OF WASHINGTON.

(From Preliminary & Reconnaissance Notes Prepared by the Department of Engineering of the University of Washington.)

<i>Drainage Area.</i>	<i>H. P. Entire 12 months at cost of \$1.50 per H. P. or less.</i>	<i>H. P. Estimated average for year irrespective of distribution or cost.</i>
1. Cowlitz river	230,000	1,500,000
2. Toutle river	48,000	320,000
3. Lewis river	55,000	450,000
4. White Salmon river ...	60,000	220,000
5. Nisqually river	45,000	225,000
6. Puyallup river	40,000	175,000
7. White river	110,000	285,000
8. Cedar river	75,000	200,000
9. Snoqualmie river	100,000	400,000
10. Skykomish river	85,000	240,000
11. Stillaguamish river ...	50,000	220,000
12. Skagit river	250,000	1,200,000
13. Klickitat river	118,000	300,000
14. Chelan river	300,000	500,000
15. Spokane river	80,000	240,000
16. The Olympics	160,000	850,000
17. Columbia river (with tributaries not mentioned)	750,000	5,800,000
Total	2,556,000	13,125,000

SHIP BUILDING.

With the many miles of water front, on both salt and fresh water, together with the great lumber output, it readily follows that ship building must be an important industry. One of Uncle Sam's largest battle ships was built in Seattle and other craft are being built every year. This industry is carried on in the Puget Sound district, on Gray's Harbor, Willapa Harbor and along the Columbia river. The state industrial insurance commission reports 56 firms employing 1,255 men engaged in this enterprise.

MINING.

Mining is gradually assuming important dimensions. The leading product thus far is coal, the annual output of which is about 4,000,000 tons. If the estimate of the Conservation Commission is anywhere nearly true, then there is enough still buried to last at least 5,000 years longer. Forty-nine companies are engaged in this enterprise and employ 6,700 men. The leading counties are King, Pierce, Kittitas, Thurston and Lewis.

In metal mining, the state has barely made a start, but without doubt, Washington is destined some day to play a leading part in this important industry. The annual production of metal mines amounts to about \$1,000,000.00. Gold leads, with silver, copper, lead and zinc following. There are seven smelters employing 881 men. The most productive gold mines at present are in the vicinity of Republic, Ferry county.

FISH.

The public has little idea of the magnitude of, and the money required to handle, the fish output of the state. First in importance is the salmon packing industry, which in 1911 amounted to \$9,166,845.40. All other products including crabs, clams, fresh, salted and smoked fish, shell fish, oysters, oil, fertilizer, and glue, amounted to \$4,307,233.00. The State Fish Commissioner's last biennial report shows the following for all fisheries:

	1911	1912
Working capital involved.....	\$5,130,000.00	\$3,940,450.00
Value of canneries, equipment, etc.	5,858,810.00	5,994,875.00
Total capitalization	\$10,988,810.00	\$9,935,325.00
No. of persons employed.....	13,577	12,206
Earnings of labor.....	\$4,416,709.00	\$3,797,865.13
Total value of output.....	\$13,474,078.17	\$7,964,346.62

The output for 1913 will probably amount to \$15,000,000.00 or more.

The state owns and operates 10 trout hatcheries with an output of 4,399,050 trout, and 20 salmon hatcheries producing 116,463,550 salmon. These fish were planted in the several lakes throughout the state and in Puget Sound and other waters on the coast.

TRANSPORTATION AND COMMERCE.

The state has 6,750 miles of steam trackage, 979 miles of electric railway, and 39,062 miles of highway. The chief railroads are the Northern Pacific, the Great Northern, the Chicago, Milwaukee & St. Paul, the Oregon & Washington Railroad and Navigation Company, and the Seattle, Portland & Spokane. There are a number of smaller lines carrying passengers, also a number of logging roads. Various other companies which are mentioned in connection with the county and city descriptions, operate over these tracks.

There are also about 2,500 miles of salt water frontage and over 1,000 miles of navigable river besides several large lakes that assist materially in the transportation of the state's products. The imports for the Puget Sound district for the year ending June 30th, 1913, were \$51,473,683.00. Exports for the same period were \$62,382,922.00. The tonnage on the navigable rivers for 1910, not including the Columbia above the mouth of the Snake, was 7,240,250 tons.

EDUCATION.

Washington naturally boasts of its educational facilities. There are 2,654 school districts, each containing from one to seventy school buildings, from one to 33,000 pupils and employing from one to 1,016 teachers. There are 325 public high schools containing from 6 to 1,600 pupils, three state normals, one state university, one state agricultural college, and 120 private schools including Whitman College, Whitworth College and the University of Puget Sound. The Russell Sage Foundation places the state first in the entire list of 48 states, taking into consideration ten different tests of efficiency. In nearly all the public schools manual training, domestic science, agriculture, music, and art are taught. The U. S. census report shows that the state contains the smallest number of illiterates to the 1,000 of native born whites 21 years old and over, and is outdone by only two states in the number of illiterates per 1,000 for the entire population 10 years of age and over.

OTHER STATE INSTITUTIONS.

Washington has three hospitals for the insane and one for the feeble minded, a reformatory, a training school, a penitentiary, a school for the deaf and one for the blind, a State Soldiers' Home, and a Washington Veterans' Home. A state agricultural department is maintained for the help of farmers, while a number of counties have availed themselves of the law authorizing the employment of county agricultural experts. A state fair is held each year at North Yakima, and state aid is given to the Southwest Washington Fair in Lewis county. There are two large experiment stations, one at Pullman in connection with the State College, and one at Puyallup, also a number of smaller ones in various districts.

LANDS.

Of the state's total land area of 42,775,040 acres, 11,322,644 acres are included in forest reserves, and 2,949,037 in Indian reservations. The total area of surveyed state lands is 2,024,219.16 acres and of unreserved and unappropriated government lands 1,750,208 acres. Practically all the remainder, with the exception of a few thousand acres of military reservation, has passed into private ownership.

State lands will be put up at auction upon proper application to the Commissioner of Public Lands and will be sold to the highest bidder for 10% down, the rest in 9 annual payments and 6% interest on deferred payments.

Government lands for homesteading are obtained in the usual way, the applicant filing on any vacant piece and then making his home there for three years before obtaining a patent. The best of these have already been filed on. The larger portion which still remains outside of the reservations is in the eastern part of the state. The quantity remaining July 1, 1913, is mentioned in the paragraphs on "lands" in connection with the various county descriptions. The counties containing the largest areas of such lands are Yakima, Kittitas, Stevens, Okanogan, Pend Oreille, and Grant.

At quarterly intervals the lands of deceased Indians are put up at auction and sold by the Indian Agent of the reservation to the highest bidder. Pieces may also be leased for five-year periods.

Several million acres of excellent private lands are available to settlers at low prices and on reasonable terms. They include all classes of lands both improved and unimproved, but the best opportunities usually consist in buying and developing the rough lands. In Western Washington, with the exception of a limited amount of

prairie and tide lands, they are generally stump or logged-off areas. Much is owned by logging companies who, having cut off the marketable timber, are willing to let the lands go at very low prices to those wishing to develop and make their homes on them. In Eastern Washington, they consist of logged-off lands in the northeastern counties, irrigable lands in the river valleys, and dry farming lands on the higher plateaus. The completion of a number of important irrigation projects now under way will soon add vast areas to that already available for irrigation. There is also some suitable for grazing only. Not more than one-sixth of the state is improved, the remaining five-sixths holding splendid possibilities for agriculture in all branches.

PRICES.

Prices are discussed in connection with each county. It should, however, be stated that there is no more difficult subject on which to make a careful statement. In every case effort has been made to be as conservative as possible both as to maximum and as to minimum, trying to avoid extremes in either case. Prices of improved lands are more difficult to discuss than of unimproved, on account of the varied nature of the improvements. The highest priced land usually has high class improvements, including expensive buildings, etc. It can readily be understood that if the same buildings are on a few acres instead of a large farm, the apparent price per acre will be much higher. Values of orchard lands are affected by the age, kind and bearing ability of the trees. Nearness to market and other desirable features influence prices here as in other states. It should also be noted that the lowest priced land is not always the cheapest in the long run. Much depends on what it will do, and its desirable location as a place for a home.

SEE FOR YOURSELF.

No matter where one intends to buy land, he should first see it himself. The greatest danger in making a mistake comes from buying at a distance. Lands in the same neighborhood are often very unlike. It will pay to see the place where one contemplates making a permanent home before investing any money. The purchaser will then be more satisfied with the choice. This Bureau stands ready to render any possible assistance that will lead a person to discover the exact locality he would prefer. When every proper precaution has been taken, the newcomer seldom has any longing for the old home he left when taking the step that started him toward the great and welcoming State of Washington.

THE STATE BY COUNTIES.

SOURCES OF INFORMATION.

1. The figures representing the area of unreserved and unappropriated Federal lands were taken from Circular No. 259, issued July 1, 1913, by the General Land Office of the Department of the Interior.

2. Figures representing state lands were taken from the last biennial report of the Commissioner of Public Lands issued September 30, 1912.

3. Two population figures are given for each town: 1st, the U. S. census for 1910, and 2nd, the local estimate as made by authority in each community. This Bureau assumes no responsibility for these estimates. They are given here as interesting data showing the probable growth which has taken place in the various communities since April 1st, 1910.

4. The elevation figures were supplied by an official in each community.

5. The arrangement of counties according to location is partially arbitrary as several counties could be easily classed with either of two groups and a number are difficult to classify at all. It is felt, however, that this plan is a natural one and will assist the reader in getting a comprehensive view of any particular section of the state. By reading in the order given, one can imagine a trip about the state.

6. For further information write to the secretary of any commercial body (see page 108), or to the

STATE BUREAU OF STATISTICS & IMMIGRATION,
OLYMPIA, WASHINGTON.

PUGET SOUND GROUP.

SAN JUAN COUNTY.

San Juan county consists of the group of 132 islands lying between the Strait of Juan de Fuca and the Gulf of Georgia. It is the smallest county in the state and contains 178 square miles. On one of these islands (San Juan) the British flag last floated as the emblem of English authority within the territorial limits of the United States. The principal islands besides San Juan of 54.7 sq. miles, are Orcas, 57.7 sq. miles, and Lopez 40 sq. miles. These contain more than three-fourths of the population and most of the land area of the county. Other islands supporting prosperous communities are Shaw, Waldron, Stuart, Blakely, and Decator, while a number of still smaller ones are inhabited. No region of the world presents more entrancing loveliness than do these verdure clad, deeply indented, agate beached gems of Puget Sound. Already many wealthy men are selecting the beautiful coves and improving them with the comforts and conveniences of retiring life. Through the deep water passages throng and sport myriads of salmon during the last days before making for the spawning grounds in the mainland rivers.

Topography: The islands present various topographical features. With deep indentations, the shores in some places rise in gradual slopes affording considerable area for cultivation and in others with sheer cliffs from the water's edge to the timber crowned summits. On Orcas rears Mt. Constitution with its final elevation of 2,428 feet, reached by a picturesquely winding public road, skirting beautiful lakes and fertile valleys. Other low mountains are to be found on the larger islands, the agricultural areas being found in the valleys between.

Population: The 1910 census gave 3,610, that of 1900, 2,928, showing an increase of 23 per cent. Most of the people are of sturdy American stock but the preponderating industry of fishing has attracted many Norsemen and some Icelanders, Germans and Canadians.

Lands and Soil: Between the mountain heights are many little valleys containing good agricultural land, nearly all privately owned and gradually being cleared for culture. Some of it is excellent grain land and all of

it the very best for orchard and truck farming. The total area of the county is 113,920 acres, of which 3,472 acres are state lands. The soil is mostly a rich calcareous brown loam, rich in phosphates, these ingredients being added from the decomposing limestone cliffs, ocean vegetation and forest droppings. Portions of each section are rich beaver dam lands, bottom lands, and prairie lands.

Climate: The western slope of San Juan is more exposed to the outer ocean blasts, but the eastern slope, protected by the high hills, and the inner islands shielded by San Juan and washed by the warm Japan current enjoy unusually pleasant climatic conditions the year round. The mean annual temperature is about 48 degrees, the average daily variation being about 25 degrees. The annual precipitation is 30 inches, divided into 6 inches in the spring, 12 inches in the winter, 3 in summer and 10 in the fall. Contrary to what might be expected from such a situation, there is not much fog on the islands themselves although there is considerable on the surrounding waters.

Prices of Land: Tracts suitable for miscellaneous farming, dairying, stock raising, fruit growing, etc., can be obtained at from \$10.00 to \$100.00 per acre, while beautiful nooks, containing a little arable land and suitable for summer retreats or permanent retirement can be acquired at small cost.

Natural Resources: The immense lime deposits, some of which run almost chemically pure, afford the largest revenue in manufacturing. The Roche Harbor Lime Company on San Juan operates 13 kilns with a capacity of 1,500 barrels daily. This is a perfectly equipped plant making its own packages and with wharfage facilities for direct shipping to world-wide markets. Other smaller plants on this and Orcas islands are also in operation. The most valuable salmon traps are among these islands and support extensive canneries, while crab and clam products are canned at Friday Harbor. Veins of gold, silver, and copper are uncovered, but little mining so far has been done.

It produces more sheep than any county in Western Washington. Cattle, poultry, and dairying are also profitable pursuits. The region is famous for apples and produces other fruit and berries successfully. Considerable hay is exported. Plenty of pure, clear run-

ning water is obtained from small streams, springs and wells.

Transportation: A number of passenger and freight steamers as well as several commodious launches ply these waters daily, touching every nearby town and village and affording cheap transportation to the main land cities. The waters are thronged with fishing vessels and the world's commerce passes near its southern and western shores.

Wages: Laborers are always in demand and they obtain good wages. At harvest time and during the fishing season common labor is paid \$2.50 to \$3.00 a day. Berry and fruit pickers receive from \$1.50 to \$2.00 and mechanics \$4.00 to \$7.00.

Social Conditions: The islands are used as the play grounds and summer retreats of the people of Puget Sound. At Rosario, on Orcas island, is one of the most extensive private estates on the Pacific coast. Within the music hall of its fire proof mansion is a pipe organ said to have cost \$25,000. An esthetic and convivial hospitality abounds. Schools and churches are ample in number. There are 27 school districts, 19 postoffices and 3 rural mail routes.

CITIES AND TOWNS.

The only incorporated town is Friday Harbor on San Juan. The other principal towns are Roche Harbor, East Sound and Orcas on Orcas Island, and Richardson on Lopez.

Friday Harbor: County seat. Altitude 75 feet. Population (1910 census) 400. Local estimate 500. A fishing and farming center and the home of the Biological Station of the University of Washington. It has a United States Custom House, two salmon canneries, two newspapers, a bank, a new fire proof court house, electric lights and volunteer fire department. Two churches and good schools are maintained, including a four-year high school. Four Sound boats stop daily.

Roche Harbor: Population 250 (local estimate). Principal industry is lime manufacturing. It has extensive kilns and exports products to all Pacific coast points. Its lime works are probably the greatest in the west. It also has a stave and heading mill, stone quarries and cooper shop. Farming, horticulture and fishing will in time be important. Satisfactory steamboat transportation is supplied.

ISLAND COUNTY.

This county consists of two large and two very small islands composing 208 square miles of land lying out in the waters of Puget Sound. The two largest are Whidby and Camano. The first of these, often called the long island of Puget Sound, is about 50 miles long and from 2 to 9 miles in width. The other is about 20 miles in length and from 1 to 7 miles wide. It is connected with the mainland by a bridge at Stanwood. Both islands are deeply indented with bays forming beautiful harbors and fine shelving pebbly beaches. The country is usually quite level although slightly rolling in places. There are no rivers nor mountains but a few small creeks and pretty lakes. A portion of the western slope of Whidby faces the Strait of Juan de Fuca and attracts many campers on account of the ocean breezes. The other portions of the county face the calm waters of the Sound.

Lands: The total area is 133,120 acres, most of which has passed into private ownership, there being only 6,453 acres owned by the state and no unappropriated federal lands. The central portion of Whidby is gently rolling prairie and contains the bulk of the agricultural lands, 15,000 acres of which are under cultivation. A still larger area is in the logged-off or partially cleared, and presents many excellent opportunities.

Soils: The soil is clay loam enriched by centuries of decaying vegetation. On most of the level land it is very rich and highly productive, especially for cereals, hay, vegetables or fruit. Phenomenal crops of wheat, oats and hay have been produced here and the soil is well adapted for truck farming. One acre near Coupeville produced one hundred and seventeen bushels of wheat.

Climate: The annual precipitation is the lightest on the Sound. Snow seldom falls and fogs are uncommon. In 1908 there were 16.60 inches of rain fall equally distributed throughout the year except that the least precipitation was in July and September. The mean temperature averaged 49.65. There is scarcely any freezing weather and the temperature in the summer is seldom warmer than 80 above, the air being tempered at all times by the warm ocean tides and land breezes.

Prices of Land: Some wild land is for sale at from \$15.00 to \$20.00 per acre. Much of this, when cleared, will

be worth as much as the best now occupied. Improved agricultural land is well worth from \$50.00 to \$150.00 per acre since the best of it will yield 75 to 150 bushels of oats, 3 to 8 tons of potatoes and 2 to 2½ tons of timothy and clover per acre.

Resources and Industries: There is no mining and comparatively little manufacturing in the county, the chief resource being dairying and fruit and vegetable raising. Valuable fish traps line its seaward shores and give considerable employment to the local people. The county needs, and offers favorable inducements for, the location of fruit canneries and creameries and would like a condensery, also an electric lighting plant which would furnish power. Many of the towns have their own water systems, while fine springs and small creeks are everywhere and shallow wells can be easily obtained.

Transportation: Steamboats give daily service between all landings and to Everett and Seattle. Good wagon roads traverse the county and efforts are being made toward getting state assistance for a bridge over Deception Pass, which is at present crossed by a ferry.

Markets: Every product of the county will find a ready market at Everett or Seattle and this would be true so far as dairy products go if the quantity were increased many fold.

Wages: More people than are permanently resident are needed at harvest and fruit picking time and even better wages than on the mainland prevail. Skilled mechanics in limited numbers will be encouraged to make their homes in this county where good pay is given for expert work and every chance exists for accumulating a competence in property and permanent assets.

Social Conditions: There are so many pretty villages and comfortable homes in intimate association that the communities are much like a happy family in their relations. This brings about a delightful feeling of hospitality and mutual helpfulness. Each neighborhood has its pretty school and homelike church. A county fair is held each year and the summer resorts are attractive to campers for many months. Nearly all homes are connected by telephone service. There are 16 school districts and 15 postoffices.

CITIES AND TOWNS.

Coupeville: Population 1910, 310. Local estimate 350. County seat. The metropolis of the county and one of the oldest settlements in the state. It has a saw mill, weekly newspaper, two churches, and a four-year high school attended by pupils from all over the north end of the island. Near by is Still's Park, a pretty summer resort. Surrounding the city are some very fertile agricultural lands. Daily boats connect with Seattle and Everett.

Langley: Population 350 (local estimate). A farming center known as

the metropolis of the southern end of Whidby island. Agriculture and timbering are chief industries. It has a cannery, two churches, a two-year high school, and one newspaper. There are four boats daily to Seattle.

Oak Harbor: Altitude 30 to 150 feet. Population (local estimate) 500. A farming and saw mill town on the north end of Whidby island. It has good school facilities and one weekly newspaper. Daily boats to Seattle and Everett.

Other centers are Classic, Mabana, Maxwelton, Clinton, San de Fuca, and West Beach.

WHATCOM COUNTY.

This is the extreme northwestern county in the United States. It is bounded by British Columbia on the north and by the Straits of Georgia and Bellingham Bay on the west.

Natural Features: Starting at tide level on the west, the elevation of the county gradually heightens until the crest of the Cascade Mountains is reached on the eastern boundary. This mountainous area, which contains about 60 per cent of the county, is heavily timbered and is included in the Washington Forest Reserve. Just within this reserve is rugged Mount Baker, 10,827 feet high and the goal of many a band of tourist adventures. The southwestern portion of the county is rather rolling, while the northwestern part, composed of the valleys of the Nooksack and its tributaries, is practically level agricultural land stripped of its timber and contains the bulk of the population. A number of picturesque lakes are to be found dotting its surface, while several large islands add to its land area.

Population: The 1910 census gave a population of 49,511, about evenly divided between Bellingham, the county seat, and the remainder of the county west of the reserve. Nearly every nation seems to be represented, including a few Japanese and some Chinese who work in the canneries. Altogether 20.8 per cent were foreign born white. Of particular interest is a strong colony of Hollanders engaged in dairying near Lynden. In the timber industries, Scandinavians are conspicuous. The years succeeding the census have witnessed substantial growth.

Climate: The fact that the county

is the most northern should not presuppose a rigorous climate. The reverse is the case. The record for 1912 shows a precipitation of 27.42 inches at Bellingham, only 2.8 inches of which was in the form of snow. The annual mean temperature was 61.2 degrees; the highest, 92 degrees on July 17, and the lowest 10 degrees on January 1. The first autumn frost was October 27 and the last spring frost March 30. The equability of climate is due to the warm moisture bearing winds from the Pacific and the protection afforded by the mountains on the east.

Land: The county's entire area is 1,332,480 acres, of which 815,080 acres are in the forest reserve, 5,160 acres are unappropriated public lands, 12,561 are in the Lummi Indian reservation, and 31,925 acres are State lands. In 1910 there were included in farms, 145,747 acres, of which 46,885 acres were improved. In addition to the unimproved land in farms, there are approximately 125,000 acres of logged-off area, making altogether in the county over 200,000 acres of logged-off land ready for settlers.

Soil: The agricultural area is rich in the soil elements. Much of the valley land is alder bottom, consisting of a sandy slightly calcareous loam, while the uplands are chiefly a clay loam. In the western part are found peat swamp, tidal swamp, and marsh lands.

Prices of Land: Values vary greatly. From \$75.00 to \$200.00 will best represent the prices for improved river valley areas; \$50.00 to \$100.00 for average improved timber lands, while \$20.00 to \$40.00 will buy the best of the wild or partially slashed stump lands. In the foot hills and in the

uneven sections there are still offerings at \$8.00 to \$15.00.

Natural Resources: In addition to the fertile farm lands there are practically inexhaustible forests containing billions of feet of timber, while water front industries utilize the products of forest, mine, soil, and sea. The soil and the sea contributed equally in 1912, the yield of each being about three and a half million dollars, while the manufactures of the county, including timber products, were about equal to the sum of these. There is room for unlimited future expansion in these industries and a field for small factories as side lines. Dairying, with allied pursuits, is fast becoming of prime importance.

Water: The Nooksack river and innumerable lakes are the main sources of water supply. Lake Whatcom, with 345 feet elevation, and Lake Padden, 425 feet elevation, both practically within the city of Bellingham, afford beautiful recreative features of hunting, fishing, and summer resorts. More than 10,000 horse power of energy is now generated, but there is capacity for hundreds of thousands more.

Transportation: The Great Northern and Northern Pacific railways traverse the county north and south. The Bellingham Northern—part of the Milwaukee system—runs from the harbor to the coal fields of Mount Baker. An interurban system radiates from Bellingham to the south and other lines are projected north and east. Steamers ply between the county ports and all points on the Sound, while California and Alaska freight and passenger boats make regular calls. The products of mill, forest, factory and farm are here loaded on steamers and sailing craft for all parts of the world. The county wagon roads are the pride of the state.

Wages: Common mill work \$2 to \$2.50 for men and \$1.25 to \$1.75 for grown boys. Skilled labor in mills and boat building, \$3 to \$6; and in machine shops, \$3 to \$4. Farm hands get \$30 to \$40 and keep, except that at harvest time as high as \$3 per day and board is offered. Hundreds of girls and women find work from June to September in the fish and fruit canneries and hundreds of men find employment as independent gill net fishers, during the salmon run. Fishing for herring, smelt, cod, shrimp and halibut, employ many others at wages varying from \$50 to \$100 a month and keep.

Social Conditions: Schools, churches and religious bodies of all denominations are to be found; fraternities are well represented; county fairs, old folks reunions and state and national conventions are frequently held. There are 28 post offices, 77 school districts and 26 high schools in the county. An unique divertisement is the annual Marathon race that is run in August from the city of Bellingham to the summit of Mount Baker, 42 miles distant. The course lies over country roads, forest trails, cragged mountain sides, crevasse bisected glaciers and deep snow fields, with changing temperatures and varying densities of air. The modes of conveyance are steam locomotives, racing cars, horses, skis, snow shoes, etc., all racing at dangerous speed. The large prizes offered and the novelty of the race attract the famous athletes of the world as well as an army of sight-seers.

CITIES AND TOWNS.

Bellingham: (County seat.) Altitude 110 feet. Population, 1910 census, 24,298. Local estimate 35,000. The metropolis of the county as well as of other neighboring territory. It is a jobbing center and nearest commercial port to Alaska, which affords a ready market for much of its manufactured, agricultural and dairy products. It is the fifth city of the state in population and fourth in bank clearings, exports, manufactures and postal returns. It is the principal location for the salmon canning industry and has several of the largest saw and shingle mills of the state. Other important industries include various wood working industries, fruit canneries, a cement plant, tile and brick works and boiler works. In 1911 the total value of its manufactures was over \$7,000,000.00 The commercial importance of the city is increased by an ideal harbor and extensive wharfage, and by the 23 trains supplied by the Northern Pacific, Great Northern and Chicago, Milwaukee & St. Paul railways and by the Puget Sound Traction Company. Steamers leave for Sound points, coast cities and foreign ports. The city has 16½ miles of paved streets, 23 miles street railway, a gravity water system, electric lights, three paid fire departments and two parks. It supports two high schools, eleven grade buildings, a Catholic school, fifteen churches, two daily papers, four weeklies, and a public library containing 40,000 volumes.

Blaine: Altitude 42 feet. Population (1910 census) 2,289. Local estimate 3,500. A growing city situated on the boundary line of British Columbia and on Drayton Harbor. It is the most northwesterly municipality in continental United States. Transportation is supplied by the Great Northern Railway Company and daily steamers. Its geographical location, as a gateway to Canada, makes it a port of entry into the United States. It has electric lights, waterworks, telephone, and paved business streets; two newspapers, a forty acre public park, three grade and one high school and a volunteer fire department. Among its important industries are five salmon canneries, one crab cannery, one saw mill and box factory, a lacquer factory, numerous shingle mills, and two machine shops. A large area in the vicinity is in cultivated oysters, while good farm lands are available. Free sites are offered for worthy industries. The present payroll is about a half million per year.

Sumas: Altitude 40 feet. Population 1910 census, 902. Local estimate 2,000. An important railroad town on the border of British Columbia, the junction and custom port of the Northern Pacific Railway Company, the Canadian Pacific Railway Company and the Bellingham Northern. It is a supply point for a large area of rich farming and fruit land located within the county and just across the border. It has a high school, two grade schools, paved business streets, water works, electric lights, telephone exchange, a public library, and one newspaper. Three saw mills, four shingle mills, and a creamery are maintained. One of the largest pear and berry orchards in the west is being planted a mile from town.

Lynden: Altitude 95 feet. Population 1910, 1,148; estimate 1,500. Known as the "Gem" city of the interior county. Located in the center of a rich farming section. It has one high school, three grade schools, five churches, a public library, and a park. Several saw and shingle mills, and a sash and door factory employ many men. It is essentially a dairy town and

sets the pace for that industry elsewhere. It has an extensive creamery and many large dairy farms. It has a municipal water works, a telephone exchange, public library and newspaper. The annual county fair is held here. Transportation is supplied by the Great Northern railroad and by auto stage.

Ferndale: Altitude 25 feet. Population 1910, 691. Local estimate 1,200. Located on the Nooksack river ten miles from the county seat. It has several saw and shingle mills, but its chief industries in the future will be farming, fruit culture and dairying. It is surrounded by good automobile roads and is served by Great Northern trains. Labor in mills and on farms is in considerable demand. A high school, a grade school, five churches, and a newspaper are supported.

Everson: Altitude 40 feet. Estimated population 350. An important dairying center on the Bellingham Northern railway. A large condensery canning about 50,000 pounds milk per day, and a fruit and vegetable cannery are located here. Town has Presbyterian church, ample school facilities and one newspaper.

Nooksack: Altitude 98 feet. Population (local estimate) 450. A dairying center three miles from Everson on the Northern Pacific railway. Each town shares the other's advantages. It has two creameries, two churches, a high school, weekly newspaper and electric lights. Berry growing and general farming are successful industries.

Kendall: Altitude 546 feet. Population (local estimate) 350. Town has a limestone quarry for cement manufacturing, one church and school. Lumbering and agriculture are carried on in the vicinity. Bellingham Northern railroad.

Marietta: A lumber town located on the shore line just northwest of Bellingham. Fishing, dairying, poultry raising and gardening are important.

Other centers are Clearbrook, Custer, Glacier, Park, Standard, Van Zant, Semiahmo, Clipper, Lawrence, Barron, Maple Falls, Deming, Acme, and Mountain View.

SKAGIT COUNTY.

The general topography of this county, the climatic conditions, its products and means of transportation, resemble those of Whatcom on the north and Snohomish on the south. Interested

inquirers should read the descriptions of all three.

Natural Resources: The east half is very mountainous and heavily timbered, reaching as it does up into the

summits of the Cascades. Many mountain streams, however, cut through the barriers and soon unite with the Skagit river. This river, flowing a distance of 135 miles from its source in British Columbia, bisects the western half of the county and, after forming one of the richest bodies of agricultural land in the state, empties into the Sound, which bounds the county on the west. The western half of the county is in places very level and in others quite rolling, with a gradual slope towards the salt water, which forms a number of excellent harbors as well as considerable valuable tide land area. A number of islands are also included in the county's limits, chief of which are Guemes and Cypress.

Population: The census of 1910 gives the county 29,241, showing an increase since 1900 of 8,747 or 61 per cent. Of the foreign nationalities Scandinavians predominate although nearly all other countries are represented. About 21 per cent are foreign born white. This section is rapidly growing.

Lands: The total land area is 1,135,360 acres. 493,840 acres are included in the forest reserve, 7,000 in unreserved government lands, and 84,650 in the state's holdings, leaving over 500,000 in private ownership, about 300,000 acres of which are assessable timber lands and the remainder chiefly logged-off or totally cleared agricultural area. All of the logged-off lands are tillable but not over 75,000 acres are at present intensely, nor 50,000 more partially, farmed, making about 1,897 farm occupancies.

Soil and Crops: The bottom lands consist chiefly of alluvial loam. The tide and marsh lands are peat while the uplands and benches are principally a clay loam. All are very productive. In 1911, 20,000 acres produced 1,800,000 bushels of oats. Timothy hay yields 3 to 5 tons to the acre while clover and the vetches yield 4 to 6 tons an acre.

Climate: The climate of the valley is mild and equable, resembling North Carolina and Georgia but with less degrees of variation, the average daily range being not over 9 degrees. The winter months of December, January and February, average 38 above and the other nine months range from 45 to 85 above. The precipitation varies from 26 inches in the west to 42 inches in the east of the county.

Prices of Land: Logged-off land

can be bought in large areas from original owners at from \$15.00 to \$25.00 and in small tracts at from \$25.00 to \$40.00 per acre. The cost of clearing varies considerably but averages about \$100.00 per acre. Much of the oldest and best land is worth in earning values up to \$400.00 per acre, but very little of this is on the market. Large areas of the wild land can be made equally productive by thorough clearing and careful preparation. There are a few opportunities to rent for about \$18.00 per acre.

Natural Resources: For many years to come the greatest financial returns will probably be from the forests. Not counting the reserves, there are about twelve billion feet of assessable standing timber. Every little town has its saw mill and shingle mill, together with the allied industries. Eventually, however, dairying will be the main support. Even now, more are employed at this industry than at any other. Three large milk condenseries and a number of creameries are maintained. General farming with production of oats, hay, fruits and vegetables, are now important, while a few ranches are making a specialty of producing vegetable and grass seeds for market. There are unlimited limestone deposits for cement manufacturing. Two large plants are now in operation. Two coal mines are also running, while gold mines have been worked for years. The fishing industry supports extensive salmon canning plants, codfish curing and packing establishments, and fertilizer factories.

Water: Water is nowhere needed for irrigation. For domestic purposes, the supply is pure and unlimited and obtained in the river valleys from springs and creeks or shallow wells. Numerous beautiful lakes, well stocked with fish, are to be found in the valleys and on the mountain heights. Thousands of horsepower from mountain streams are, at present, going to waste, but several power plants are in process of construction on the Skagit and Baker rivers.

Transportation: The Great Northern railway bisects the county both east and west and north and south; the Northern Pacific railway traverses it north and south; while the trolley system of the Pacific Traction Company connects the principal towns with Bellingham and will eventually extend to Everett and Seattle. Steamships ply between Anacortes and other Sound ports. Foreign vessels also stop

here. The Skagit river is navigable for 30 miles. The county has 275 miles of good automobile roads and 375 miles of other roads that compare well with any in the state.

Markets: Markets for the huge oat crops, the cement, and fish products, are found in all parts of the world even as far as the Orient. British Columbia, Alaska and the Sound ports furnish buyers for all surplus fruit, vegetable and other farm products. Logs, piling, and shingles are carried by train and steamship to near-by and far-away markets.

Wages: Farm labor is paid about \$45.00 per month and board. Common labor at mill, farm, or cannery is paid from \$2.00 to \$2.50, while skilled artisans receive from \$3.00 to \$7.00. Harvest hands get from \$2.50 to \$3.00. Women, girls, and boys in cannery work often earn from \$2.00 to \$4.00 per day during the fishing season. Berry and fruit packers are usually scarce and command good pay.

Social Conditions: The people are generally prosperous. Splendid grade and high schools are provided; public libraries and pretty churches are in nearly all the towns; good roads and public improvements are encouraged; and evidences of hospitable social life are everywhere apparent. Mail service is excellent and 35 postoffices are maintained. There are 81 school districts.

CITIES AND TOWNS.

Mount Vernon: County seat. Altitude 15 feet. Population 1910, 2,381. Local estimate 3,000. Prettily located on the navigable Skagit river and the Great Northern Railway about 8 miles from the Sound. It is the mercantile and social center of the county and is surrounded by valuable farm and dairying lands. Dykes protect it from the river. Its most important industries are two large condenseries of the Pacific Coast Milk Company, a large creamery, a machine shop and wood working plants. A high school, two grade schools, ten churches, and other public buildings are supported. It has two newspapers, municipal water works, electric lights, telephone system, and a volunteer fire department, and four miles paved streets. It is also a terminal of the interurban system which extends to Bellingham.

Anacortes: Altitude, sea level. Population 1910, 4,168. Local estimate 5,500. Located on Fidalgo island. It is the seaport of the county and is

reached by the Great Northern Railway as well as by regular passenger and freight steamers. It has extensive wharfage and excellent facilities for deep water traffic. Terminal rates apply. Lumbering and fishing industries, together with agriculture, dominate. Its main industries are, nine shingle mills, three lumber mills, two cedar siding factories, two glue and fertilizer plants, two codfish plants, six salmon canneries, two shipyards, three machine shops, one box factory, one fruit and vegetable cannery, one creamery, and cold storage plant, one feed mill, one fresh fish packery, an ice plant, and a glass factory. Payroll amounts to at least \$100,000.00 monthly. It has ten churches, one high school, four grade schools, a public library, and two newspapers; also two parks, a paid fire department, a gravity system water supply, and electric lights. Plenty of factory sites, with rail connections and deep water frontage, are available.

Sedro Woolley: Altitude 50 feet. Population 1910, 2,129; local estimate 3,000. A railroad center located in the rich valley of the Skagit river. It is served by the Great Northern, Northern Pacific and the Bellingham interurban. Tributary to it are rich level farming lands and timbered mountains. For industries, it has two machine shops, one foundry, five shingle mills, veneer mill, furniture factory, ice and cold storage plant, creamery, milk condenser, elevator and feed mill, vinegar factory, and a round house. The town has seven churches, one high school, two grade schools, public library, two newspapers, and the State's Northern Hospital for the Insane. It also has a volunteer fire department, gravity water system and electric lights. A county rose show is held here in June. Payroll is about \$400,000.00 annually.

Burlington: Altitude 35 feet. Population 1910, 1,302. Local estimate 1,400. A railroad center served by the Great Northern Railway entering from four directions and by the main line of the Bellingham interurban. It is also the center of the automobile traffic of the county. Sustaining industries are shingle manufacturing, dairying, fruit and poultry raising. It has seven churches, a high school, one grade school, a weekly newspaper, electric lights, volunteer fire department, and city park. County fair is held here.

La Conner: Altitude, sea level. is

Population 1910, 603. Local estimate 735. Located at the mouth of Skagit river and at the head of Snohomish slough, it becomes the export depot for the rich oat fields and seed farms of the famous La Conner flats. Transportation facilities are good. It is the oldest town in the county and richest in wealth per capita. It has a shingle mill and one saw mill with daily capacity of about 40,000 feet. About 150 men find employment in the fishing industry. Four churches, a high school, and weekly paper are supported. City has electric lights, gravity water system and a public park.

Concrete: Altitude 210 feet. 1910 population 945. Local estimate 1,250. Located at the junction of the Skagit and Baker rivers and surrounded by fertile valley and snow capped mountains. Main industries are the manufacture of cement, lumber and shingles. The Washington and Superior Portland Cement Companies are operated here with a daily output of about 5,000 barrels. City has two churches, good school facilities, two newspapers, and electric lights.

Hamilton: Altitude 96 feet. Population 1910, 405. An important lumber town on the north bank of the Skagit river. Iron ore is also shipped. Two churches and a high school are supported. Much logged-off area suitable for farming can be secured.

Lyman: Altitude 100 feet. Population 1910, 441. Local estimate 500. A lumber and shingle manufacturing town centrally located within a section suitable for dairying and stock raising. Splendid hunting and fishing grounds are handy. City has two churches, a high school, a weekly paper, and electric lights.

Alger: Population (local estimate) 400. A logging and dairy center located on the Pacific highway and a branch of Great Northern railway, about 13 miles south of Bellingham. It has one church, school facilities, and electric lights.

Big Lake: Altitude 95 feet. Estimated population 600. Located on the Northern Pacific Railway. Saw mills, shingle mills, planing mills, and brick and tile plants are the chief manufacturing concerns. Town has a union church, good school facilities, electric lights, and volunteer fire department.

Clearlake: A saw mill town, prettily located between two lakes on the Northern Pacific Railway. It has electric lights, two churches and school facilities.

Grasmere: Altitude 500 feet. A shingle mill town and agricultural center, located in Skagit Valley on the Great Northern railway. Plenty of good land is available. Concrete, with its cement plants, is a few miles away.

McMurray: A lumber and shingle town on the Northern Pacific railway. It has a church, a grade school, and electric lights.

Milltown: A lumbering, fishing, and farming center on the Northern Pacific railway and close to the Sound. Three boats stop there each week. It has two churches and a grade school.

Montborne: Altitude 150 feet. A saw mill town situated on Big Lake and the Northern Pacific railway, surrounded by forests and trout streams. It has electric lights and grade school.

Other centers are Bay View, Samish, Baker, Minkler, Prairie, Fir, Belleville, Bow, Rockport, Edison, Fidalgo, Avon and Marblemount.

SNOHOMISH COUNTY.

Topography: This county, lying between Skagit and King counties, slopes gradually toward Puget Sound, bounding it on the west, and rises to the heights of the Cascade mountains on the east. Its area is 2,064 square miles. The western portion comprises a great agricultural area very little higher than the Sound, while the eastern portions include the lower foothills of the mountains, as well as Glacier Peak, 10,436 feet high, and many other lesser heights. This portion is all thickly timbered and is in the Snoqualmie and Washington forest reserves. The county is drained by several important rivers, including

the two forks of the Stillaguamish, the Snohomish, the Sauk, the Skykomish and the Sultan, each producing much level and highly productive delta land. Much of the county is logged off and eminently suited to dairying. The forty miles of waterfront is one continuous harbor.

Population: The 1910 census gives the county 59,209, ranking it, in this respect, fourth in the state. Nearly a half were in the city of Everett. The growth of the section was phenomenal during the ten years following the 1900 census, the increase for the county being 35,259, or 148 per cent, and for Everett, 16,976, or 216

per cent. The citizenship is mostly American, but Norwegian, Swedish, German and Canadian subjects are prominent.

Lands: Snohomish contains approximately 1,320,960 acres, of which 671,120 acres are in forest reserves already mentioned, and 30,616 are state lands. Practically all of the remainder, which was originally covered with forest growth, is now surveyed and occupied. About 300,000 acres are "logged off," of which the 1910 census shows that there were 118,328 acres in 1,680 improved farms having 34,126 acres improved, the whole having a value of \$13,346,133.00. At least 200,000 acres of the unimproved stump land is of good soil and agricultural value, and most of it may be bought at reasonable prices. Much of the privately owned timber land also will eventually become good farming property, while many good pieces are probably locked up in the reserves. In this county, also, there is a large area of reclaimed tide flats which yields heavily.

Soils: There are many varieties of soil and all are intensely productive. The river bottom lands and the extensive deltas formed by former flooding are a rich brown or black sandy loam, the deposits of the decomposing porphyritic and calcareous glacial silt. Much of the uplands also are so formed and enriched by the detritus of its ancient vegetation. All are admirably adapted to the growth of cereals, vegetables and fruits. No irrigation is needed, the annual precipitation being from 36 inches on the coast to 42 inches on the uplands. The heaviest precipitation is from November to April, but from six to nine inches are distributed during the summer months.

Prices of Land: Unimproved land, including considerable "cut over" land and some partially slashed or cleared, is worth from \$15.00 to \$100.00 an acre. Some already thoroughly cleared and improved can be bought at from \$100.00 to \$300.00 an acre. Depending on its use, from five to twenty acres is sufficient for a medium-sized family. The cost of clearing described for other waterfront counties will apply to Snohomish. New land can be obtained on long-time payments, by lease, or a combination of both, while improved land can sometimes be rented on shares or for cash.

Water: Shallow wells, giving pure cold water, are obtainable on all agri-

cultural lands and no better water is obtained than that bubbling from the springs and mountain streams. The Sultan river, the two forks of the Stillaguamish and the north and south forks of the Skykomish, together with several smaller streams, contain millions of horsepower as yet unharnessed. The Stillaguamish has about 220,000 and the Skykomish 240,000 possible horsepower. The Snohomish river is navigable 12 miles from Everett to Snohomish.

Natural Resources and Industries: For many years to come the dense forests of fir, cedar, spruce and hemlock will furnish the main industries, including logging, lumber and shingle manufacturing, and the re-manufactures from these. Nearly every town and village has one or more mills. Even the down cedar of the logged-off lands will yield sufficient to bear much of the cost of clearing. Within the Cascade mountains is an extensive mineral belt that will in time produce much revenue. Fishing for salmon, halibut, cod and mackerel is important and two state hatcheries are in this county. Diversified manufactures are very important. The opportunities for development are unlimited, with the vast water power already mentioned and the raw materials to be obtained. The gross value of all manufactures for 1912 exceeded \$12,000,000.00. As the forest gives way the lands described above will yield more fully and maintain many more people than are now in this locality.

Transportation and Markets: The Great Northern, Northern Pacific and the Chicago, Milwaukee & St. Paul railways traverse the valleys and penetrate the mountains. Trolley cars run between Seattle and Everett, making connections for Lowell and Snohomish. Lines are expected to continue north through the county towns. There are altogether 397 miles of steam and 39 miles of electric railroad in the county. There are 40 miles of waterfront and 12 miles of navigable river. Daily steamers ply between all Sound ports and many clear for foreign countries. The county roads are equal to the best in the state. The large cities, containing half the population, offer markets for farm products, while the excess manufactures are disposed of to eastern or over-sea trade.

Wages: There is usually a demand for both skilled and unskilled workers. Farm hands get from \$2.00 to \$3.00 per day when working by the

day without board; \$35.00 to \$45.00 per month are the ruling prices when board is included. Other wages are similar to other parts of the Puget Sound country.

Social Conditions: Since all modern facilities for home comfort, travel, recreation and education are plentifully provided, social conditions are highly developed. Music, art and architecture are greatly encouraged. Fraternal and benevolent societies are many, and every opportunity for religious culture is provided. The schools are attractive, commodious and thoroughly equipped. There are 43 postoffices, 18 rural routes, 83 school districts and 18 high schools.

CITIES AND TOWNS.

Everett: County seat. Population, 1910 census, 24,814, an increase of 216 per cent during the decade; local estimate, 27,500. Strategically located on a peninsula created by the waters of Puget Sound and the navigable Snohomish river winding around its northern and eastern borders. It has 22 miles of deep water frontage suitable for manufacturing purposes and three-fourths of a mile of dockage. The 90-odd manufacturing plants, together with the Great Northern shops and public service corporations, have given her the name "City of Smokestacks." Between four and five thousand men are employed, with wages of over \$4,000,000. Chief of these are the lumber and shingle manufacturing mills, machine manufacturing plants and paper mill. The products reach an annual value of many millions and are marketed throughout the world. It has the only arsenic plant in the United States, two flour mills, a powder factory, a tannery, a brick yard, and a smelter. Raw material is plentiful and special encouragement is given to desirable concerns. There are five banks with combined deposits of about \$5,000,000. The city is served by the Great Northern, Northern Pacific, Chicago, Milwaukee & St. Paul and Canadian Pacific railways, besides two electric systems connecting with Snohomish and Seattle. Five steamers run daily to Seattle and one to Bellingham. Other vessels from all parts of the world visit here. It has 14 miles of electric railway, 19 miles of paved streets, and over 80 miles of cement walks. A \$165,000.00 high school, eight grade schools, besides a separate vocational school and a number of private

colleges are supported. It is lighted by electricity and gas. City has a public library of over 10,000 volumes, two telephone systems, two daily and four weekly newspapers, over 40 churches, a Y. M. C. A., four city parks and a number of large playgrounds. An industrial exhibition and a great festival called "Kla how Yah" are held each year.

Snohomish: Population 1910, 3,244; local estimate, 5,000. The oldest and second city of importance in county. Its slogan is "Garden City." Located in the center of a rich agricultural area at the head of navigation on the Snohomish river and on the lines of the Great Northern and Northern Pacific railways with trolley car service and river boats to Everett. Business streets are paved. It is provided with municipal water system, electric lights and gas, sanitary sewer, telephone, telegraph and free mail delivery. City has nine churches, a four-year high school, one German Lutheran school, a public library of 2,500 volumes, two weekly papers and a city park. It has two lumber mills, six shingle mills, a condensery, creamery, cannery, iron works, brick yard, cement and concrete plant and many other industries. The yearly payroll is over a half million. County fair is held here in September.

Monroe: Altitude 50 feet. Population, 1910 census, 1,552. A pretty dairy and agricultural city in the Skykomish river valley near its juncture with the Snohomish and Snoqualmie. It is served by the Great Northern main line, the Tolt branch and the Chicago, Milwaukee & St. Paul railways. City has a large milk condensing plant, two shingle mills and a creamery. Six churches, a high school, three grade schools, a public library, a public park and two newspapers are supported. It also has electric lights, paved streets and fire department. The State Reformatory is located here.

Marysville: Altitude 20 feet. Population, 1910, 1,239; local estimate, 1,500. An agricultural town on the rich delta land at the mouth of the Snohomish river. Ideal opportunities for dairying and farming industries and manufacturing of forest products are presented. It has three lumber and shingle mills and two straight shingle mills. There are five churches, a four-year high school, a library, one paper, electric lights and gravity water system. Payroll is nearly a quarter of a million annually.

Arlington: Altitude 107 feet. Population, 1910 census, 1,476; local estimate 2,200. At the confluence of the north and south forks of the Stillaguamish and on the line of the Northern Pacific railroad. Several logging camps, saw and shingle mills are in the vicinity. It has two creameries, a cheese factory and two machine shops. Payroll is about \$180,000.00 annually. It has two newspapers, modern high school, five grade schools, ten churches, electric lights, water system, and paved business streets.

Lowell: Population, 1910 census, 1,007; local estimate, 1,500. Adjacent to Everett and one of the oldest settlements on the Snohomish river. Noted for its paper and pulp mills, which never close except at Christmas and 4th of July. It also has a tannery, sawmill, shingle mill, a large box factory and creosote plant. Other than being a separate corporation, this city is practically a part of Everett, description of which should be read in this connection.

Edmonds: Altitude, tide level to 300 feet. Population 1910, 1,114; 1900, 474; increase, 138 per cent. A waterfront city midway between Seattle and Everett, on the main line of the Great Northern railway. Passenger steamboats and a trolley system not far away keep it in hourly connection with Seattle and Everett. It has eight shingle mills, one steel and bolt factory, one box factory, and an excelsior plant with a payroll of nearly a quarter million annually. City enjoys a water system, electric lights, two weekly papers, four churches, a new modern high school building, public library, and telephone service. Choice tillable land suitable for fruit, berries, truck and dairying is purchasable.

Stanwood: Altitude, sea level. Population, United States census, 554; local estimate, 1,000. On the Great Northern coast line, with steamer service to Seattle three times weekly. Surrounded by the rich dyked farm lands noted for wonderful oat production. Land is also adaptable to dairying and diversified farming. City has a sawmill, three shingle mills, a gravity water system, electric lights, two and one-half miles of paved streets, four churches, a high and grade school, a Norwegian Lutheran school, two telephone lines and a weekly newspaper. Sites are free for manufacturing enterprises of merit.

Startup: Altitude 34 feet. Population (local estimate) 500. A lumber-

ing and mining center in the valley of the Skykomish river on the main line of the Great Northern railway and on the route of the scenic highway soon to be built by the state. Town has two churches and a grade school.

Three Lakes: Altitude 600 feet. Population (local estimate) 550. A lumber and shingle manufacturing town located on a logging railroad having connection with the Great Northern, Northern Pacific and Chicago, Milwaukee & St. Paul railways. It has church and school facilities and electric lights.

Florence: Population (local estimate) 400. Situated on the Stillaguamish river a short distance from its mouth. Reached by steamer service from Port Susan harbor. Surrounded by good dairy land. Contiguous to creameries and condensers. Has two churches and school work through the 11th grade.

Gold Bar: Altitude 189 feet. Population (local estimate) 750. In a valley near the confluence of the Skykomish and Wallace rivers, and on the Great Northern railroad, which maintains yards and shops here. A heavily timbered district surrounds it. Land is adapted for dairying, general farming, bush fruits and pears. Good land close in can be bought for from \$20.00 to \$60.00 an acre. Town has gravity water system, electric lights, a church, one school, a newspaper, and telephone and telegraph facilities.

Granite Falls: Altitude 396 feet. Population 1910 census, 714; local estimate, 1,000. Located on the Northern Pacific railway and surrounded by land well suited to dairying and vegetable growth. Granite rock, coal deposits and water power are in vicinity. Shingle and lumber manufacturing are the main industries. City has gravity water system, electric lights, four churches, high and grade schools, two parks, telephone service and a weekly newspaper. An annual Ranchers' or Grange Fair is held in August.

Index: Altitude 531 feet. Population (United States census) 417; local estimate 500. On the main line of the Great Northern railway in a mountainous and thickly timbered section. In close proximity are important granite ledges. One granite quarry is in operation. Saw and shingle mills and logging camps are in vicinity. City has gravity water system, electric lights, one church, high and grade school, public library and a weekly newspaper.

Mukilteo: Altitude, sea level. Population (local estimate) 700. Reached by Puget Sound steamers and trains. Here Governor Stevens, first executive of the territory, signed memorable treaty with Indians. Chief industries are lumber and shingle manufacturing. A powder mill is two miles away. Land in vicinity is suitable for fruits, cattle raising and dairying. It has four churches and good school facilities.

Sultan: Altitude 102 feet. Population (United States census) 576; local estimate 1,000. A lumbering, dairying and mining center located on the main

line of the Great Northern railway at the confluence of the Skykomish and Sultan rivers. About 400 men are employed in the town and near by. Some placer mining on Sultan river and some quartz prospects. City has three churches, a four-year high school, two grade buildings, municipal water system, electric lights, cement walks and a newspaper.

Other centers are Pilchuck, Birmingham, Darrington, Edgecomb, Getchell, Hazel, Lochsloy, Maltby, Oso, Silvana, Sisco, Seattle Heights, Tulalip, Bryant, Norman, Monte Cristo and Silverton.

KING COUNTY.

This is the leading county of the state in point of population, commerce and finance. It has a strategic advantage of location, being central in Western Washington, with over a forty-mile mainland frontage on Puget Sound. Its total area is 2,111 square miles with a widely varied contour.

Topography: Beginning at sea level on the west, many fertile valleys, the largest of which trend north and south, alternate with wide plateaus of varying altitude until they are finally enveloped in the foothills of the Cascade mountains, whose tree-clad ridges, with a maximum elevation of 7,000 feet, form a zig-zag terminal line at the eastern boundary of the county and separate it from Kittitas and Chelan counties. The most important valley is the continuous one formed by the White and Duwamish rivers and used as the main portion of the thoroughfare between Seattle and Tacoma. Tributary to this, but trending generally east and west, are the valleys of the Black, Cedar and Green rivers. Another considerable area is formed by the Snoqualmie and its tributaries behind the second chain of hills trending toward the north. There are also a number of lakes with wide areas of tributary agricultural land. The most important is Lake Washington, from one to three miles wide and nineteen miles long, parallel to and a few miles back from the Sound, the country to the west forming the site of the city of Seattle. This lake is now being connected with the Sound by a government canal which utilizes Lake Union, in the heart of the city, as a part of its course. Lying behind it is Lake Sammamish, about eight miles long, and connected

with the lower lake by a series of sluggish sloughs.

Population: The census of 1910 gives the county 284,638; that of 1900, 110,053; showing an increase for the decade of 158.6 per cent. Local conservative estimators now claim about 350,000; 26.3 per cent were foreign-born white and 4 per cent native or foreign other than white. Foreign-born in numerical ratio are: Canadians, Swedes, Norwegians, Germans, English and Italians, with all other nationalities represented. Of negroes there were 2,487 and of Orientals 8,884. Outfitting for Alaska, wintering here of large fishing and mining concerns of the North, together with much tourist travel, have contributed also to a large floating population.

Land: The whole region was once dense forest and much of it is still covered with valuable timber, while another large portion is in the logged-off land state. The most important timbered portion is the mountain region in the eastern part included in the Rainier and Snoqualmie forest reserves. There is no so-called prairie land in the county, but thousands of acres lie as level as could be desired, especially in the valleys already noted, and on a few elevated mountain plateaus. Besides the valleys and plateaus there are many fertile slopes suitable for fruit, pasture and stock raising. Fifty per cent of the county would be suitable for agriculture and much of the remainder splendid for grazing. The approximate land area of the county is 1,351,040 acres. Forest reserves take 463,120 acres, state lands include 60,621 acres, while only 4,480 are unappropriated and unreserved federal lands. The last census

shows 3,287 farms, containing 148,417 acres, or 11 per cent of the county. Only 54,923 acres, or 37 per cent, of this were improved.

Soil: In the White and Duwamish river valleys and their tributaries are usually found alluvial soils, such as silty loam, sandy loam and gravelly sandy loam, varying from a foot to twenty feet in depth. The sloping ascents from these valleys consist of sedimentary gravelly sandy loam, partly derived from glacial deposits enriched by later decaying vegetation. Where depressions left by former lakes occur, this is packed with silty clay or sandy clay with a thin muck surface and a subsoil of heavy clay. Higher up on the plateaus the surface soil consists of sandy and gravelly loam. At the mouth of the Duwamish is a small area that might be called tidal marsh. On the western slope of Vashon island is rich loamy sand and on its east side a gravelly sandy loam.

Climate: In the western half of the county, where the agricultural area and the bulk of the population are found, the rainfall is from 25 to 40 inches yearly. The temperature never reaches zero and only occasionally the freezing point. The summers are comfortable day and night, excessive heat being unknown. In 1912 the highest temperature at Seattle was 90 degrees, May 14, and the lowest 24 degrees, January 8. The precipitation for 1911 was 21.69 inches; for 1912 it was 35.14 inches; for 1913, less than 24 inches. Snowfall for 1911 was 4.1 inches; for 1912, 3.75 inches. The normal temperature by months for a 33-year period is as follows:

January	39	July	64
February	40	August	63
March	44	September	58
April	49	October	51
May	55	November	44
June	60	December	41

Prices of Land: The rich delta land of the rivers, traversed as it is by numerous railways, trolley lines and superb auto roads, and limited as it is in quantity, naturally brings the highest prices. Close to the small cities, where are situated the milk condenseries, creameries and fruit canneries, good land, when improved, commands from \$200.00 to \$500.00 per acre. For best lands close to Seattle prices will run higher, often higher than \$1,000.00 an acre; valley slopes not so much improved, \$100.00 to \$200.00; wild land with stumps and brush re-

maining, of good soil and accessibility, from \$50.00 to \$125.00. Further remote choice land can be had at from \$20.00 to \$50.00, while hilly regions most suitable for dairying and stock raising can still be obtained at from \$10.00 to \$25.00. The average cost of clearing ready for the plow is generally stated at about \$75.00 to \$150.00 per acre.

Resources and Industries: Chief among the defined and developed resources of the county is the yet standing timber, the value of which is variously estimated. The conservative figures obtainable for 1910, the last year for a combined national and local estimation, give 8,356,640,000 board feet on privately owned land and 13,893,600,000 on reserved lands, or a total of 22,250,240,000 board feet. Although some diminution of the timber area takes place annually, the loss is compensated by the opening up of a corresponding quantity of logged-off land. The returns from acreage already under cultivation run into the millions annually. The most important crops include hay and forage, vegetables, fruits, nuts, livestock, dairy and poultry products.

Manufacturing has reached enormous proportions. Practically every class of enterprise is represented. The different plants are mentioned in connection with the various cities and towns. Among the most prominent are lumber and shingle mills, various wood product concerns, flour mills and grist mills, meat packing plants, machine shops, clay product plants, milk condenseries, canneries, etc. The fishing industry also is important. Vast quantities of fisheries products are handled every year through the port of Seattle.

Of great importance, too, is its commanding geographical position and the resulting transportation facilities. This factor and the enterprise of its citizens have been important in gaining for it its prestige as a commercial, manufacturing and financial section. It has large influence in the traffic with Japan, China, the Philippines, Australia and South America. The value of imports through the port of Seattle for the calendar year ending December 31, 1912, was \$25,665,947.00; exports, \$21,204,568.00. Total imports and exports were \$43,829,417.00, with customs receipts of \$1,509,168.00. The total appraised value of all property in the county is \$559,623,881.00.

Water: The most important lakes

and rivers are mentioned elsewhere. For domestic uses nearly every town has water under pressure brought from some stream or lake, or pumped from deep wells. Scarcely any locality but what contains pure water not far beneath the surface. Water power has been comparatively little developed. Among the most important falls harnessed for use are Snoqualmie falls, having a sheer drop of 270 feet, and Cedar falls. It is estimated that the White river and its tributaries can produce a maximum of 285,000 horsepower, the Cedar river 200,000 horsepower and the Snoqualmie 400,000 horsepower. Only a fractional part has so far been energized.

Transportation: The Cascade range is pierced at three nearly equidistant points to admit the three great transcontinental railroads, the Great Northern, the Chicago, Milwaukee & St. Paul and the Northern Pacific. The Oregon-Washington Railroad & Navigation Company, which includes the Union Pacific, comes in from the south. The Canadian Pacific and the Chicago, Burlington & Quincy operate over the tracks of the Northern Pacific, while the Chicago & Northwestern and Southern Pacific have passenger service over the Northern Pacific and Oregon-Washington Railroad & Navigation rails, respectively. The Columbia & Puget Sound extends to the operating coal mining districts. The total mileage for steam railroads, including a number of logging roads, is over 778 miles. In addition, there are 281 miles of electric lines. The Puget Sound Electric traverses the county north to Everett with hourly service, and south to Tacoma with half-hour service. The Seattle & Renton Electric extends along the shores of Lake Washington. There is daily or more frequent freight and passenger service by water to other cities and landings on Puget Sound. A number of steamship companies operate regularly out of Seattle to Coast cities, Mexico, South America, Hawaii, and to Oriental, Australian and European ports.

Wages: Common labor outdoors commands \$2.00 to \$3.00, skilled from \$3.50 to \$6.00. Factory common labor wages are from \$1.00 to \$1.50 for boys and girls, \$1.50 to \$2.00 for men. Mechanical work in factories pays from \$2.50 to \$3.00. Men's clerical work returns from \$60.00 to \$100.00 per month. Women's work, including stenography, bookkeeping, etc., from \$40.00 to \$80.00 per month. Sales-

ladies receive from \$7.00 to \$15.00 per week. An eight-hour day generally prevails.

Markets: The abundant methods of transportation greatly enlarges the markets for the county's products. Several localities now have canneries to preserve an overplus of fruits, vegetables, etc. Both the ripe and the preserved products are readily disposed of. There is never sufficient forage, seed, dried fruits, dairy stuff, poultry and animal products to supply even the local demands. The quadrupling of manufacturing plants and the additions of other new enterprises during the decade indicate a strong demand for all that can be produced. The manufactured articles from forest materials seldom accumulate, unless by reason of seasonal car shortage; the whole world is the market for these, while the Alaskan trade bids fair to take available eatables. All fisheries products are awaited and disposed of without delay. Salmon, halibut, cod, crabs, oysters and clams are expeditiously handled and return a large revenue annually.

Social Conditions: Metropolitan advantages are offered for social leadership. Architectural skill, musical and literary talent of high degree are to be found. Advantageously placed are adequate parks, playgrounds, libraries, art galleries, picnic grounds, boulevards, etc. These agencies, aided by ample means for rapid and safe transit, by land and water, in spite of the newness of the country and the eagerness of the people in amassing vast fortunes, have developed strong bonds of friendship among the surrounding localities and given ample opportunity for the development of the highest social tastes. The King County Fair is held at the Meadows in September. There are 133 school districts, 46 high schools, 82 main postoffices and 24 rural routes.

Vashon and Maury Islands: These two islands, practically one, connected at Portage by a narrow neck of ground, form an important part of the county. Their total area is nearly 23,000 acres, much of which is at present covered with timber, or is in the logged-off condition. Nearly all, however, is excellent agricultural land. Berries and fruits do especially well. Several greenhouses are here, one of them near Vashon being the largest in the West. The combined population is over 3,500 people. Most im-

portant settlements are Vashon, Burton, Chautauqua, Lisabeula, Cove and Colvos. A new modern high school costing \$15,000.00 has just been completed at Vashon. Daily boats connect all points with Seattle and Tacoma, also with each other. A boulevard will in time extend all around. A public ferry has just been authorized to connect the island with the mainland, thus bringing the Seattle and Tacoma markets in close proximity. About \$3,500.00 worth of eggs are shipped each month during the laying season. About \$30,000.00 worth of strawberries were shipped last season. A special Vashon Island Fair is held each year at Vashon.

CITIES, TOWNS AND VILLAGES.

Seattle: County seat. Altitude, sea level to 500 feet. Area, 94.47 square miles, including water. Population, 1910, 237,194. Postal count, August 1st, 1913, 301,670. Foreign-born white element represents about 26 per cent of the whole. Of these, Canadians, Germans, Scandinavians, English, Irish, Italians, Russians and Scotch rank numerically in the order named. Interesting is the story of the city's founding in 1852, its struggle for existence, the destructive fire of 1889, and the rapid growth since, until it has become the second city in importance west of the Rockies, the twenty-first in the United States, and the first in the state. Its attractive and strategic location on a magnificent harbor (Elliot Bay) and in the midst of great resources, aided by the rapid growth of Alaska, has been largely responsible for this unusual development.

The city occupies the eminence of rolling hills, plateaus and valleys lying between Lake Washington, on the east and Puget Sound on the west, overlooking both these waters and extending by gentle slopes to the water's edge in either direction. It is a city of hills. One can go in a straight line ten miles north and south and not get out of the city limits, most of which is well settled. From nearly all parts there is visible either the Sound with the snow-capped Olympics beyond, or Lake Washington, seemingly fringed around with the Cascade mountains, while Mt. Rainier towers to the sky at its southern end. Within the city limits and surrounded by homes and business enterprises are two large fresh water lakes, viz., Lake Union near its geographical cen-

ter and Green Lake just south of its northern boundary. From some favored sites all these beautiful waters may be seen at once, together with the government canal connecting Lake Washington with the Sound and costing \$3,625,000.00. The larger lock for this canal will cost \$2,300,000.00. To supplement this natural beauty, grand boulevards have been built and parks beautified. Many acres of tide flats have been filled in, creating the most valuable manufacturing sites in the city.

Foreign and domestic commerce, manufacturing, mining, fishing, shipbuilding and agriculture in all its branches contribute to its growth. No reliable figures are available showing the present value of manufacturing, which four years ago amounted to over \$50,000,000.00, representing a capital of nearly the same amount. The total actual valuation of all property in 1912 was \$473,175,660.00. Its assay office has received in gold since 1898, \$210,407,068.00. In 1912 building permits were valued at \$8,415,325.00. Clearings for its 27 banks were \$602,430,661.00. Domestic and foreign commerce amounted to \$121,425,175.00, representing 7,100,650 tons of cargo. There were carried in and out a total of 3,489,291 passengers.

Postoffice receipts in 1912 were \$1,049,504.00. Real estate transfers amounted to \$25,660,480.00. There are 237 miles of electric railway, 949 miles of cement walks, 178 miles paved streets, 617 miles graded streets, 31 miles of boulevard and 150 miles waterfront, including salt and fresh water. There are 58 steamship lines, which include some of the largest freight carriers in the world, seven transcontinental railways and three interurban electric lines.

Area of city parks is 1,428 acres, not including playgrounds, boulevards and triangles. There is invested in street improvements \$39,745,163.00. The city library, with its seven branches, contains 175,000 volumes. City owns its lighting plant, which cost \$3,636,187.00, serves 25,000 customers and lights 699 miles of street with 6,061 street lamps. Its water plant, also municipally owned, serves every one of its citizens with the famous Cedar river water. This plant represents an outlay of \$12,682,046.00. Its reserve capacity is 270,102,000 gallons.

There are about 300 churches, representing every known denomination of Christian religion, 6 high schools,

64 grade schools and 26 private schools. Here also is located the University of Washington, a free state institution on a campus of 355 acres and with more than 3,000 students annually enrolled.

There are four large daily papers, four smaller dailies, 26 weeklies, 23 monthlies, 2 semi-monthlies and 1 quarterly. There are two depots not excelled by any in the West.

An annual festival called the Golden Potlatch and lasting for a week in July is held each year in commemoration of the arrival of the S. S. Portland with the first big Klondike gold shipment given to the world through Seattle. The King County Fair is held at the Meadows each September.

Renton: Altitude 50 feet. Population, 1910, 2,740; local estimate, 5,000. A pretty suburban town and coal mining center lying at the southern end of Lake Washington, about 10 miles from Seattle, and on the line of several trunk railways and two electric interurbans. Originally founded as a coal mining town, it is now prominent as a manufacturing city. Here are located one of the largest units of the Denny Renton Clay and Coal Company employing 400 men, the Seattle Car and Foundry Company with 300 men, and the mines of the Puget Sound Electric railway with 400 men, besides numerous other industries affording a payroll of \$600,000.00 annually. It has five miles of paved streets, municipal water system, electric lights, volunteer fire department, a four-year high school, three grade schools, five churches and two newspapers. The lowering of Lake Washington by opening the canal will increase the area for manufacturing sites.

Kent: Altitude 56 feet. Population, 1910, 1,908; local estimate, 2,400. A thriving farming and dairying city in the heart of the fertile White river valley, midway between Seattle and Tacoma on the line of all the trunk railways as well as the Seattle-Tacoma interurban. Among its many industries are a large milk condensery, a wire manufacturing plant, Simplex bed factory, three saw mills, one shingle mill, incubator factory and a beehive factory. Town has municipal water system, electric lights, seven churches, a high school, two grade schools, city park and three newspapers. A flower show is held in August.

Auburn: Altitude 100 feet. Popula-

tion, 1910, 957; local estimate, 2,500. A rapidly growing farming and dairying center located in the White river valley, 22 miles from Seattle. It is the junction point for the Northern Pacific railroad, which maintains its yards here with a large monthly payroll. It has a large condensery, tile manufacturing concern, saw mill, shingle mill, ice plant, seven churches, high school, public library, gravity water system, electric lights, volunteer fire department, two miles paved streets and two newspapers. It is served by all the trunk railroads, also by the Seattle-Tacoma interurban with two trains hourly.

Enumclaw: Altitude 752 feet. Population, 1910, 1,129; local estimate, 1,200. On a fertile plateau of the famous White river valley, 34 miles east of Tacoma, on the line of the Northern Pacific and at the end of a spur of the Chicago, Milwaukee & St. Paul railway. It has two saw mills, four shingle mills and a creamery. Dairying and general farming are important. Soil is known as the Buckley loam. It has city-owned water, electric lights, a high school, grade school, two weekly newspapers and a volunteer fire department. An annual Dairy Carnival is held in August.

Bothell: Altitude 36 feet. Population, 1910, 599; local estimate, 1,000. Located on the Northern Pacific railroad and the Sammamish river, connecting the lake of that name with Lake Washington. The soil of the valley consists of a fine sandy loam that yields in a remarkable manner. It has boat service to Seattle and other lake points. An automobile road to Seattle has just been completed. It has electric lights, good water, four churches, a high school, public library and one newspaper. It serves as a metropolis to the many little villages in the locality. There are good opportunities for factories.

Kirkland: Altitude 20 feet. Population, 1910, 532; local estimate, 800. A pretty suburban town on Lake Washington, just opposite Seattle. Gardening and dairying are important. It is served by the Northern Pacific railroad, also by regular ferry boats to Seattle. Transportation is such that people live here and work in Seattle. It has a woollen mill, electric lights, city-owned water, volunteer fire department and one newspaper. An agricultural exhibit is held yearly in October.

Kennydale: Population, 1910, 525; local estimate, 600. A lakeside suburban town across from Seattle where many of its citizens work. It is served by the Northern Pacific and Chicago, Milwaukee & St. Paul railways, besides three rival lines of lake transportation. Land is suitable for market gardening and floriculture. Near by are productive coal fields extensively operated. It has one shingle mill, one church and a high school.

Issaquah: Altitude 96 feet. Population, 1910, 628; local estimate, 2,000. Located on the Northern Pacific railroad at the south end of Sammamish lake, in a fertile valley suitable for dairying and truck farming. In a direct line it is only 13 miles from Seattle, by rail 42 miles and by auto stage 26 miles. Two active coal mines employing 600 men are nearby. It has a condensery, electric light service, waterworks, fire department, three churches, a high school and a newspaper.

Newcastle: Population (local estimate) 700. A coal mining town on the Columbia & Puget Sound railway. The Coal Creek mine produces over 200,000 tons annually. Electric lights, two churches and good schools.

Richmond Beach: Altitude 20 feet. Population (local estimate) 600. Fifteen miles north of Seattle on the Great Northern railway and facing the Sound. Everett interurban is $1\frac{1}{2}$ miles east. Auto trucks make daily trips to Seattle. The Standard Oil Company and the American Gas Company have tanks here. Town has a shingle mill, an enamel brick plant, two churches and a high school. Good bathing beaches are near by. Richmond Beach strawberries are famous.

Algona: Altitude 112 feet. Population (local estimate) 800. A dairying and farming center on the Chicago, Milwaukee & St. Paul and Puget Sound Electric railroads. Berries, fruits and vegetables do well. Two churches and a grade school. High school pupils attend at Auburn.

Pacific: Population (local estimate) 700. A growing farming town in the rich White river valley, 3 miles from Auburn, on the Puget Sound Electric railway. Two churches and a high school.

Duvall: A town of about 50 people, attractively located in the Snoqualmie river valley and on the Chicago, Milwaukee & St. Paul and Great

Northern railroads. Town is only three years old; has two shingle mills, saw mill, church, high school, good water and electric lights.

Tukwila: Population, 1910, 361; local estimate, 500. On the Puget Sound Electric railway, overlooking the Sammamish valley, near Seattle market. It has three nurseries, three shingle mills, electric lights and grade school. Floriculture is practiced. Berries and small fruits do well.

Tolt: Altitude 90 feet. A town of nearly 500 people, in the Snoqualmie river valley, on the Great Northern and Chicago, Milwaukee & St. Paul railroads. A vast body of timber is tributary; land is excellent for dairying and general farming. It has a saw mill, a shingle mill, two churches and a high school. Streets are paved; electric lights are being installed.

Preston: Altitude 500 feet. A lumber and shingle mill town of several hundred people, on the North Bend branch of the Northern Pacific railway. It has one church and two grade schools.

Redmond: Altitude 30 feet. Population (local estimate) 350. A farming center one mile from Lake Sammamish, on the Northern Pacific railroad. Stage connects with Kirkland; auto trucks make daily round trips to Seattle. Dairying and poultry raising are important. It has two churches, a high school and newspaper. Electric lights are being installed.

Skykomish: Altitude 960 feet. Population, United States census, 238; local estimate, 400. A sawmill town on the Great Northern railway in the upper part of the valley of same name. It has a high school and municipal water and lighting systems.

Taylor: Altitude 1,174 feet. Located on the Columbia and Puget Sound railway. Townsite owned by Denny-Renton Clay & Coal Company, who manufacture various clay products. Coal mining is carried on. Electric lights and water system.

Kerriston: Altitude 1,214 feet. Population (local estimate) 450. A saw mill with 150,000 daily capacity is the chief industry. On the Northern Pacific railroad and near headwaters of Raging river.

Selleck: Altitude 1,100 feet. A lumber, logging and shingle town, on the Northern Pacific and the Chicago, Milwaukee & St. Paul railways. Timber supply unlimited. Electric lights and gravity water system.

Maple Valley: A farming center of about 350 people, 23 miles from Seattle, on the Columbia & Puget Sound and Chicago, Milwaukee & St. Paul railways, between north and south forks of Snoqualmie river. It has a lumber mill, shingle mill, the King county stone quarry, one church, a high school, city water system and electric lights.

Black Diamond: One of the most important coal mining towns in the state and located on the Columbia & Puget Sound railroad. Yearly coal production is about 400,000 tons.

Population is about 2,000. Chiefly Welsh, Italians, and Austrians. Auto stages run to Kent and Auburn. Dairying has possibilities. There are three churches, a four-year high school, and electric lights.

Vashon: A farming town of about 400, located on island of same name. A new high school is being built. Fruit growing, berries, floriculture and poultry raising are important industries.

O'Brien: Population (local estimate) 300. A farming center located

on the Northern Pacific, Chicago, Milwaukee & St. Paul and Puget Sound Electric railroads. It has a cheese factory, pickle factory and good school facilities. Dairying is successful.

Ravensdale: An important coal mining town on the line of the Northern Pacific. A heavy timber belt is tributary.

Thomas: Population (local estimate) 250. Located in the center of the rich White river valley not far from Kent, on the Great Northern, Northern Pacific, Chicago, Milwaukee & St. Paul and Puget Sound Electric railways. Dairying, berry growing, poultry farming and gardening are important. Children attend Kent high school. It has a Methodist church.

Other centers are Factoria, Nargrom, Rockdale, Cumberland, Grotto, Hobart, Hollywood, Inglewood, Orillia, Hazlewood, Kenmore, Fall City, Monohon, Pontiac, Black River, Elliot, Barneston, Eagle Gorge, Baring, Chautauqua, Bryn Mawr, Christopher and Kangley.

PIERCE COUNTY.

This county ranks third in the state in population, wealth and business importance. It marks the upper end of Puget Sound and is central to Western Washington.

Natural Features: Its area of 1,701 square miles contains the greatest variation in elevation to be found in any single county of the United States, ranging as it does from tide level on the west to 14,408 feet on the snow-capped heights of Mt. Rainier (or Mt. Tacoma) in the southeastern corner. There is one river of importance, the Puyallup, which, with its tributaries, forms the valleys containing the best agricultural land. The Nisqually, forming the boundary line between Thurston and Pierce, divides its fertile area between the two counties but has tributaries which are totally in Pierce county. Above the valleys are the plateau's—forest covered steps to the scenic peak—that rise tier above tier to the limit line of vegetation. Snugly ensconced upon these are innumerable lakes, natural reservoirs of the life and power of the hills. Nearer the Sound and gently rising from the shores between the river valley depressions, are rolling prairies, well drained and carpeted in

spring with a great variety of wild flowers and wooded in spots with moor oak, likening the vicinity both as to appearance and feeling with the moors of southern England or the plains of Normandy. Several important islands in the Sound also belong to this county, offering peaceful and picturesque homes to those desiring closer intimacy with the water. Thus we find a combination of the physical divisions of mountain, plain, valley, river, bay and island in one small compass.

Population: The census of 1910 gives the county 120,812; that of 1900, 55,515, showing an increase of 117.6 per cent for the decade; \$3,743 were in the city of Tacoma alone; 71.3 per cent were native-born white; 25.9 per cent foreign-born white, and 2.8 per cent negroes and Orientals. The foreign-born in greatest numbers were Scandinavians, Germans, Austrians, English and Canadians. A steady growth has taken place during the past three years.

Lands: The total land area is 1,088,640 acres, from which 323,220 acres have been taken for the Rainier National Park and Rainier Forest Reserve, and 17,463 for the Puyallup Indian Reservation. Of state lands

there are altogether about 48,168 acres, and of unreserved and unappropriated government lands not more than 301 acres, leaving in the hands of private owners close to 700,000 acres, including city and town property. The census of 1910 shows 156,590 acres occupied in farm area, but with only 42,405 acres improved. The thousands of acres of rolling prairie, mentioned above, under proper cultivation, will in time yield good crops of one kind or another. Their productivity has already been demonstrated.

Prices of Land: Prairie land, depending on its contiguity to cities and depth of soil, ranges in value from \$15.00 to \$75.00. When close to some city its value is, of course, greatly enhanced. Logged-off land, of which there is plenty on the market, usually has a more productive soil and is worth from \$20.00 to \$50.00 an acre. When cleared it produces a value of from \$100.00 to \$250.00 an acre. Improved river bottom land or first bench land of the White, Stuck, Nisqually and Puyallup rivers, and of the Ohop, Muck and Clover creek valleys, which has proven its intense value for berry and other fruit culture, will average from \$200.00 to \$400.00 an acre, exceptional pieces going as high as \$1,000.00. Very little of this, however, is offered for sale. The new arrival with limited means will generally do best by purchasing the crude land and developing it for himself. For the ordinary family five to twenty acres of such land will be plenty.

Soils: The character of the soil is as varied as the elevation. In general, the prairies are a gravelly or sandy loam containing considerable organic matter of an average depth of 12 inches. The low-lying logged-off land slightly elevated above the prairie land is described as the Buckley loam, or sandy muck with heavy muck or peat soil. Considerable of the table lands are composed of shot clay. The river bottoms, which constitute a large area of this county, have varying soils dependent on the detritus carried thereon, but for the most part they are alluvial muck loam, rich with decayed vegetation silted from the forests above. The depth is from a foot to twenty feet with usually a clay or sandy subsoil. Hardpan is seldom encountered.

Climate: The climate is comparable with the south of England, ex-

cept that there is always less snow and range of temperature. The western half, containing the bulk of the people and improvements, is in a zone that receives an annual rainfall of from thirty to fifty inches. The United States Weather Bureau station at Tacoma reports the precipitation for 1912 as 43.58 inches and for 1911, 27.79 inches; for 1913, precipitation will be similar to 1911. The annual mean temperature for 1912 was 50.9 degrees and the total snowfall 15.7 inches. The highest temperature reached was 92 degrees on July 18th, and the lowest 16 degrees above, Dec. 27th. The last killing frost was February 28, and the first in the fall November 25. The temperature varies very little from year to year.

Resources and Industries: The unsurpassed commercial location of this region, supplemented by the best of transportation facilities, described under separate heading, together with an unlimited supply of raw material and water power, has been largely instrumental in building up a great manufacturing section. According to a cruise made in 1910, there were 345,962 acres of timber land, containing 9,853,167,000 feet of standing taxable timber assessed at \$7,801,188.00, while the forest reserves and state lands will increase the quantity by at least as much more. Its many coal mines produced in 1912 about 800,000 tons, about one-tenth of which was changed into coke. Fisheries are important, there being as high as 1,000,000 pounds of halibut handled in one year over the Tacoma wharves. The development of these resources naturally causes a furthering of the agricultural interests by making necessary the products of the soil for local consumption or by facilitating their marketing in other quarters. Berry growing has probably met with greater success here than in any other county, especially in the Puyallup valley, which is also one of the most important hop raising sections in the state. Poultry raising, dairying, stock raising and truck farming are all important. The appraised valuation for all property in the county reaches the figure of \$215,529,262.00.

Water: The county's mainland shore has about 18 miles of deep water frontage on Puget Sound, besides considerable more on its islands. Much of this is well suited for manufacturing purposes. The land is intersected with rivers or creeks, af-

foring ample means for proper drainage, as well as for irrigation when needed. The prairie country overlays strata of pure water, nearly always under such pressure as to produce artesian flow. As the prairie land is brought further under cultivation it is almost certain irrigation will be found profitable. There is vast water power in its streams, but thus far only a little more than a hundred thousand horsepower has been developed. It is possible to increase this as necessity demands to about eight times the amount.

Transportation: Transportation facilities are practically the same as for King county. The Northern Pacific, Great Northern, Oregon & Washington and the Chicago, Milwaukee & St. Paul systems, which include trackage rights with the Union Pacific from Portland and the Canadian Pacific from British Columbia, traverse the county and reach deep water at the extensive wharfage at Tacoma. There are altogether 399 miles of steam railroad trackage and 142.5 miles of electric line. This latter serves the main towns in the north end of the county and connects with Seattle on a half-hour schedule. Local steamboats also connect with the Sound cities and towns, while a special two-hour service is maintained between Seattle and Tacoma. Ocean-going craft clear for foreign ports. The character of the surface soil and abundance of road material make easy the maintenance of public highways suitable for the farmer's wagon or the many automobiles, and encourage their building into the furthestmost recesses of the county.

Markets: Tacoma naturally serves as the chief market in the county, but other Puget Sound cities consume large portions, especially its berries, dairy products, hops, etc. The large canneries and condenseries are of great assistance, so that nothing raised goes to waste. All that can be spared from these consumers is shipped to foreign lands.

Wages: The Tacoma Commercial Club and Chamber of Commerce gives the following as the wage scale per hour in that city: Masons 70c, bricklayers 75c, plasterers 75c, tire-setters 75c, plumbers 75c, gas-fitters 62½c, steam-fitters 75c, carpenters 50c, stone-cutters 75c, painters 50c, electrical workers 50c, machinists 35c to 80c, pattern-makers 40c to 50c, common labor 25c to 30c, printers about

\$5.50 per day. Farm labor receives from \$35.00 to \$40.00 per month and board. In logging camps wages are from \$2.50 to \$5.00 per day.

Social: The county is prominent in social grace and expression. Tacoma, of course, takes the lead, but the smaller cities and rural communities follow as conditions will permit. All have acquired superior educational, recreative and church facilities. No needs of the people are neglected while the tourist and health seekers are ministered to with many beautiful parks and resorts. Mountain recesses, pretty islands, picturesque lakes and sequestered bays are all properly utilized. The State Soldiers' Home is located at Orting, the Western Washington Agricultural Experiment Station at Puyallup, the Western Washington Hospital for the Insane at Stellacoom, and the State Historical Society at Tacoma. At American lake the annual encampment of the State Militia takes place. Of great importance are the automobile races held in midsummer on a three-mile track near the city of Tacoma and in connection with the Montamara Feste of that city. Many world's records are made and people are attracted from all parts of the west. There are 114 school districts, 29 high schools, 59 post offices, and 15 rural routes.

CITIES AND TOWNS.

Tacoma: County seat. Altitude, sea level. Population 1910, 83,743. Present estimate 102,500. About 72 per cent foreign born white. A beautiful city picturesquely located on a peninsula sloping toward Commencement bay, one of the great harbors of the world. A large manufacturing section is located on the tide flats while the business section is just above with many beautiful residences occupying the view-points beyond. Tacoma is famous for the scenic features of the surrounding country, including the Cascade Mountains with Mt. Rainier (or Tacoma) as their apex, the Olympic Mountains, an island dotted Sound, and fir clad hills. Climate is similar to other parts of the Sound country. (See county description.) This is preeminently a manufacturing city. Altogether it contains about 400 manufacturing plants, employing about 12,000 wage earners with a yearly payroll of nearly \$8,000,000.00. Among the principal plants are large lumber and shingle manufacturing concerns, flour and grist mills, a large smelter, one of the largest meat packing establishments

in the west, and the most extensive wheat warehouse of the world; also machine shops, shoe factories and various wood product plants. \$25,000,000.00 are engaged in manufacturing enterprises. Its jobbing business exceeds \$50,000,000.00. It is one of the five largest shipping ports on the American Pacific coast and handles 42 per cent of the imports and exports of the Puget Sound district. Bank clearings for 1912 were \$221,073,467.70, about three times that of ten years before. The city has 14 miles of harbor water front, four transcontinental railroad lines with several others operating over same tracks, two interurban electrics, eight transoceanic steamship lines and five coastwise steamship lines, all having regular schedules. In addition, there is the special steamer and interurban service to Seattle already noted. The city has 93 miles of electric railway, 93 miles of paved streets, and 13 fire companies with 5 vehicles, motor driven. It has the highest lift bridge in the world, costing about \$550,000.00. Railroad building is extensive. A new Northern Pacific tunnel, at enormous expense, has just been completed under this city and contracts are let for expensive viaducts. About \$5,000,000 has been expended in these improvements.

City owns an hydro-electric plant, costing \$2,200,000 and a gravity water supply system costing over \$2,000,000. Postal receipts for 1912 were \$261,790. Building operations amounted to \$1,876,487. There are 110 churches, 25 religious societies, two large high schools with 2,100 high school students in attendance, thirty grade schools and thirteen private schools, including seminaries, colleges and academies. 19,407 children are of school age. Occupying a natural depression adjacent to the high school is a vast open air amphitheater or stadium built entirely of concrete and having a seating capacity of 30,000. There is probably no duplication of this in the world. City owns a public library containing 63,000 volumes, and 1,120 acres of well distributed public parks. Its depot is one of the most modern and expensive in the west. There are four daily papers, twelve weeklies, five monthlies, and one bi-monthly. Annual events of great importance are the Montamara Festo, held each July, and a rose show held in June.

Puyallup: Altitude 50 feet. Population 1910, 4,969. Local estimate 6,000. In the heart of the Puyallup valley, fa-

mous as a rich berry and fruit producing district. These industries have experienced great development both in production and marketing, a large cannery making profitable use of all surplus products. The land here is cut up into small tracts which have demonstrated an earning value of over \$300 an acre per year. From this station is annually shipped over a quarter of a million dollars worth of berries. City has four factories, five saw mills, a shingle mill and a creamery. Bank clearings for 1912 were \$6,000,000. It has good gravity water system, electric lights, and paved streets. There are 11 churches, a high school, three grade schools, public library, two banks and two weekly newspapers. The Western Washington fair, which attracts exhibits from all parts of Western Washington is held in September of each year. Transportation facilities are numerous, including the Great Northern, Northern Pacific, and Oregon-Washington Railroad & Navigation, and Chicago, Milwaukee & St. Paul trains and electric interurbans. There are over a hundred opportunities to get in or out of the city every 24 hours.

Buckley: Altitude 80 feet. Incorporated population 1910, 1,272. Local estimate 1,500. Situated in the White river valley, thirty miles east of Tacoma, on the Northern Pacific railway. In the vicinity are active coal mining operations. It is a center of a rich plateau, suitable for berries, hops, and other products. Lumbering industry is quite important. Municipal water plant, electric lights and paved streets are enjoyed. There are five churches, a \$40,000 brick high school, public library, a weekly paper, and volunteer fire department. Another railroad is expected and many indications point to future growth.

Sumner: Altitude 74 feet. Population 1910, 892. Local estimate 1,000. Situated at the confluence of the Stuck and Puyallup rivers and in the same rich berry and hop district as Puyallup. It is served by the Great Northern, Northern Pacific, Oregon-Washington Railroad & Navigation, and Chicago, Milwaukee & St. Paul railways. It is an excellent dairying district. Town has a yeast factory, fruit cannery, a shingle mill and saw mill. There are four churches, a high school, one newspaper, municipal water system, electric lights, and paved streets. Meritorious enterprises will receive help in securing sites.

Wilkeson: Altitude 835 feet. Popu-

lation 1910, 899. Local estimate 1,100. Located on a branch line of the Northern Pacific railway, 23 miles southeast of Tacoma. It is a trading post and center for an extensive coal mining region. Its chief industry besides coal mining, is the production of coke, the exports of these fuels exceeding annually 100,000 tons. Stone quarrying is also important. Town has electric lights, good water, half mile of paved streets and volunteer fire department. There are three churches, a bank and two school buildings.

Steilacoom: Altitude 40 feet. Population 1910, 430. One of the oldest settlements on Puget Sound, six miles south of Tacoma and reached by electric interurban and Sound steamers. It is a pretty water front town with a most beautiful view of the Sound, and is the home of the state's Western Hospital for the Insane, containing upwards of 800 inmates. Town has medical springs and a large sanitarium and sea bathing institution; also three churches, good schools and electric lights.

Orting: Altitude 87 feet. Population 1910, 799. Local estimate 1,000. Situated in the midst of a rich dairying and general farming section, between the Puyallup and Carbon rivers on the Northern Pacific railway, 13 miles southeast of Tacoma. Close by is the State Soldiers' Home with over 400 veterans not included in the population above mentioned. Hops and fruit do especially well. Town has a saw mill, shingle mill, cannery and bucket factory. It also has electric lights, volunteer fire department, four churches, high school, private school, and newspaper.

Eatonville: Altitude 824 feet. Population 1910, 754. Local estimate 1,050. Thirty-two miles south of Tacoma on the line of the Chicago, Milwaukee & St. Paul railway, in the fertile Ohop valley, from one to four miles wide. The region was once densely timbered and lumbering is still important. Lands are adaptable to dairying, fruit raising and general farming. Mineral deposits and much water power offer prospects for future growth. Town has a bank, Methodist church, high school, weekly paper, and paid fire department.

Ruston: Altitude, sea level. Population 1910, 780. Surrounded by city of Tacoma, but separately incorporated. A very large smelting plant is its main support. It also has a saw mill and a brick yard. Its general comforts and

conveniences are similar to other parts of Tacoma.

Milton: Population 1910, 448. Situated on the prairie land east and near Tacoma for which it serves as a residence suburb. Transportation is by the Puget Sound Electric Railway. A good water supply is privately owned. Several local manufacturing industries are here. A specialty is made of truck farming and berry growing.

Roy: Altitude 316 feet. Population 1910, 315. At the junction of Muck and Nisqually valleys, in the heart of one of the oldest farming and stock raising regions of the state on the line of the Northern Pacific railway, twenty miles south of Tacoma. It is the trading post for about 700 people from the rich farming land of the vicinity. It has a newspaper, two churches, and a high school.

South Prairie: Altitude 430 feet. Population 1910, 264 with nearly 500 rural population in the immediate vicinity. It is on a branch line of the Northern Pacific railway and furnishes an immense tonnage of lumber and shingles. Much mineral, coal and clay is yet to be developed. The town is supplied with a good school and two churches. Main streets are paved.

Kapowsin: Altitude 750 feet. Population (local estimate) 600. An important lumber and shingle manufacturing town, beautifully situated on Lake Kapowsin, within 30 miles of Mount Rainier (or Tacoma), and three miles from the Stone-Webster power plant. A dozen pretty lakes are nearby. Mountain climbers leave here for a certain mountain route to the mountain. A branch line of the Chicago, Milwaukee & St. Paul railway gives good railroad service while the mountain boulevard to Tacoma is not far away. The county rock crusher and a pea cannery are here. Town has two churches and a high school, good water and electric lights.

Du Pont: Altitude about 200 feet. Population (local estimate) 500. Located on the Northern Pacific railroad, 18 miles southwest of Tacoma. A large powder manufacturing plant owned by the E. I. Du Pont de Nemours Powder Company and employing 275 men is chief support. Same company owns the townsite.

Carbonado: Altitude 1,187 feet. Population (local estimate) 1,800. A coal mining town located on a branch of the Northern Pacific railroad southeast of Tacoma. Population is quite

mixed, about 15 different nationalities being represented. Town has electric lights, volunteer fire department and good schools.

Spanaway: Altitude about 300 feet. Population (local estimate) 400. At the edge of Spanaway Lake, 10 miles south of Tacoma, with which it is connected by electric interurban. Poultry raising and dairying are important industries near by. Town has a creamery, and two churches.

Alder: Population about 350. A logging and farming center located on the Tacoma Eastern railroad and the Nisqually river.

Elbe: Altitude, 1,200 feet. A small lumbering and agricultural center of 200 people, on the Tacoma Eastern railway not far from Tacoma. It has two churches and school facilities.

Lakeview: Altitude, 272 feet. A

small town of 200 people, devoted to dairying and poultry raising. Three trunk railways give service. It has a Congregational church and a grade school.

National: Altitude 1,700 feet. A saw and shingle mill town with considerable mining prospects, on the Chicago, Milwaukee & St. Paul railroad.

Sylvan: A pretty town devoted to berry growing and fruit culture. Situated on north side of Fox island. It has church and school facilities and is rapidly becoming a summer resort. Several steamers each day connect with Tacoma.

Other centers are Gig Harbor, American Lake, Rosedale, Yoman, Electron, Meridian, Alderton, Elgin, Hope, Gertrude, Parkland, Sylvan, Longbranch, Blanchard, McMillan, Benston, Bee, Fairfax, Pittsburg and Melmont.

THURSTON COUNTY.

This county marks the southernmost or upper end of Puget Sound. It has the distinction of containing the oldest settlement in the Sound country.

Topography: With the exception of a few low mountains in the west and south the surface is usually undulating or level. The rolling portion is about 60 per cent and the level about 30 per cent. Most of the drainage is toward the north into the waters of Puget Sound, a little in the south and southwest being drained into the Chehalis river. There are a number of small valleys and a few patches of ground termed "prairie land" containing from 500 to 10,000 acres each. The county is interspersed with a great many small lakes and has close to 100 miles of salt water frontage, which in some places extends nearly to the center of the county.

Population: The census of 1910 gives the county 17,581 or an increase of 76 per cent over the population of 1900. About one-third are foreign born white and the remainder native born white. The foreign nationalities chiefly represented are Germans, Scandinavians, Canadians, Finns and English. A notable increase in population has taken place since 1910.

Climate: All but a small area in the northwest of this county is in the precipitation zone of 40 to 60 inches. The precipitation in Olympia for 1911 was 39.39 inches, for 1912 it was 59.56

inches. Scarcely any snow falls and the growing period is about 170 days. Hurricanes, tornadoes, and blizzards are not known. The annual mean temperature is about 50 degrees.

Lands: The total area includes 453,760 acres, of which 151,243 acres were in 1,173 farms in 1910. In 1900 there were but 665 farms, showing the remarkable increase of 75 per cent for the decade. Altogether about two-thirds of the county is suitable for agriculture while most of the remainder is suitable for grazing and quarrying. The forest reserves amount to only 3,520 acres. Of state lands there are about 25,935 acres, leaving in private ownership about 425,000 acres. It is estimated that 60,000 acres are wood lands, 80,000 acres logged-off and 191,014 timber lands. Some of the latter is known as second growth timber lands.

Soil and Crops: The soil of the alder bottoms is a rich black loam, sometimes a deep muck; that of the uplands and prairies is shot clay and peat. It ranges from 3 to 18 feet in depth. Pears, apples, cherries, berries, root crops and grasses do particularly well and hop culture has proved successful.

Prices of Land: Unimproved land, mostly logged-off, is on the market in small and large tracts at from \$12.00 to \$40.00 per acre. Improved land fenced, cleared and under the plow, may be purchased for from \$50.00 to

\$125.00 per acre. This does not include truck gardens, very few of which are on the market. Plenty of alder bottom, suitable for intensified farming may be bought for \$50.00 an acre. A little can be leased on cash terms. Twenty acres is ample for a family.

Water: In this county there is little area not drained by streams or springs, while artesian water of excellent quality is usually obtainable at from 50 to 200 feet. In spite of the great rainfall there are places on the prairies where irrigation for a short period in the summer is an advantage, especially for orchards and garden truck.

Natural Resources: The county assessor's cruise of the assessable standing, privately owned timber, shows 4,200,411,000 B. F. to which should be added the timber of state lands which are estimated at about a billion and a half. This asset will give the county many years of work on lumber and kindred industries. Next in importance at present and probably first in time to come are the agricultural lands adaptable for dairying, fruit, stock and poultry. This is also one of the few counties possessing valuable native oyster beds. Over ten million pounds of shell fish including native oysters, clams, shrimps and transplanted oysters were shipped out of Olympia in one year by one express company. Large bodies of commercial building stone and vast beds of coal exist and are being extensively worked. Saw and shingle mills dot the county.

Transportation and Markets: With 100 miles of salt water frontage, steamboat transportation is afforded many settlements. Three daily steamers run between Olympia and Tacoma, and two to Shelton. The Oregon-Washington Railroad & Navigation, the Great Northern, the Port Townsend Southern, the Northern Pacific and the Chicago, Milwaukee & St. Paul railroads traverse the county, while numerous logging and coal roads form spurs or feeders to these. An outlet from Olympia to the south will soon be provided by the Oregon-Washington Railroad & Navigation Company, which has already purchased a right-of-way and depot facilities in that city. Exceptionally good wagon roads are provided, the splendid natural drainage and unusually hard surface assisting in their preservation. There are about 48 miles of state highway in the county.

Besides the local markets, Seattle, Tacoma, Portland and the Grays Har-

bor cities will consume everything that can be produced.

Social Conditions: The location of the state capital in this county tends to create a cosmopolitan social atmosphere, bringing as it does all classes of distinguished people to the district. The general prosperity of the people is attested by the substantial and ornate homes, numerous automobiles and substantial public buildings. In these respects as well as in quality of schools and churches the different communities vie with each other. Art, music and literature are made the most of in social and fraternal clubs. There are 64 school districts, 12 high schools and 20 post offices in the county.

CITIES AND TOWNS.

Olympia: County seat and state capital. Population 1910, 6,996; 1900, 3,803, increase 82 per cent. Local estimate 10,000. Besides being the seat of government it is the center of a large agricultural area and is possessed of a number of manufacturing plants. It has deep water docks and several lines of steamers and small craft that reach, daily, the many small farming communities of the islands and mainland shores. The Northern Pacific and Port Townsend Southern furnish rail connections, and the Oregon-Washington Railroad & Navigation Company will build from the south. Intense scenic beauty and a lovely climate add to the attractiveness of the vicinity. The city has five miles of paved streets, six miles of electric railway, good water and light system, a paid fire department, and a city park of 270 acres. It has two creameries, one cannery, knitting mills, machine shops, boat building, saw and shingle mills, sash and door factory, extract manufacturing concern, and several steam laundries. Free sites for manufacturing enterprises are offered. It has a high school building, five grade schools, a Lutheran Seminary and a Catholic Academy; a city library, state library, federal building, state capitol, two daily and three weekly newspapers and the plant of the state printer.

Tenino: Population 1910, 1,038. Local estimate 1,200. Located in a prairie valley on the main line of three railroads and two miles from the Chicago, Milwaukee & St. Paul. It is noted for its stone quarries and has three in operation. It also has saw mills and other woodworking factories,

a creamery and electric lights. Three churches, a high school and one newspaper are supported. Its annual payroll is about \$400,000.00.

Tumwater: Population 1910, 490. The oldest settlement on Puget Sound. Adjoining Olympia, on the line of the Port Townsend Southern railroad and close to the famous Tumwater Falls of the Deschutes river. Here is located an immense brewery. Electric cars connect with Olympia.

Gate: Altitude 50 feet. Population (local estimate) 500. A logging and saw mill town on the banks of the Black river at foot of the Black Hills. It is also an important railroad junction for Grays Harbor trains connecting with the main lines. Good schools are provided.

Independence: Altitude 112 feet. Population, local estimate, about 400. A logging and dairy center located on Chehalis river. It is a junction point for the Willapa Harbor and Puget

Sound railways. Two churches and school facilities are provided.

Little Rock: Altitude 125 feet. Population, local estimate, 400. A shingle mill town located on the Grays Harbor railway. Two churches are supported and three years of high school work are given.

Rochester: Altitude 150 feet. Population (local estimate), 800. An agricultural and dairying center located at the junction of the Northern Pacific and Milwaukee railroads. The Oregon-Washington Railroad & Navigation Co. is a mile to the south. The town has three churches and a three year high school.

Bucoda: Population 1910, 855. A logging and coal mining town on the main line of the transcontinental railroads. It has one church, a high school and electric lights.

Other important centers are Rainier, Bucoda, Puget, Union Mills, Sherlock, Yelm, Rochester and Bordeaux.

MASON COUNTY.

This is a county that has been somewhat slow in the past to attract settlers on account of its comparative remoteness from the main traveled sections. This condition, however, is soon to be changed by the building of state highways and the coming of railroads.

Natural Features: The Olympic forest reserve, mountainous and rough, occupies one-fourth of the area in the northwestern part, and the upper reaches of Puget Sound, its southeastern boundary, while Hood's Canal forms a sort of hook in the very center. Some parts of the county are quite rolling and all has been covered with dense timber. The portions inhabited at present are near the shore line or along the river valleys.

Population: In 1910 there were 5,156 people or 1,346 more than in 1900, an increase of 35 per cent. Undoubtedly considerable growth has taken place since. There are a large number of Finns, Scandinavians and Canadians besides a few of nearly every other nationality.

Lands: Total area of the county is 930 square miles or 595,200 acres. Of this, 165,720 acres are in the forest reserve, 9,297 in Indian reservations, 40,886 acres belong to the state, while of unappropriated and unreserved federal lands only a few acres yet re-

main. Upwards of 200,000 acres have been wholly or partially logged-off, some of it so long ago as to now have quite heavy second growth trees. Not over 50,000 acres are included in farms and not over 10,000 acres of this are wholly cleared, thus leaving great opportunities to the future agriculturists.

Soil: In the river bottoms and estuaries of the many rivers and creeks the soil is rich alluvial loam. On the uplands it is shot clay from 6 inches to 3 feet or more in depth. Grasses and large fruits do well on the uplands, while grains, small fruits and root crops do well on the bottoms.

Prices of Land: In the southern part of the county there is plenty of cut over land offered at from \$5.00 to \$15.00 per acre. Land already improved is so valuable in its productiveness and earning capacity that not much is offered for sale. Some, however, in tracts containing a few acres cleared can be obtained at from \$50.00 to \$100.00 an acre, while highly cultivated land close to a town is worth considerably more.

Climate: The location of mountains and water areas produce a delightfully equable climate, making possible a varied vegetation and causing many health resorts and camping and hunting grounds. The annual precipitation including snowfall in the mountains is

42 inches on coast line and 60 to 70 inches back on the mountain walls.

Water: Beautiful lakes dot the interior heights. The Skokomish river tumbles tumultuously from its glacial source into Hood's Canal. Numerous other streams flow into the Sound, and springs are plentiful. Much water is at present unbridled.

Natural Resources: The latent water power, its timber reserves, its fish hatcheries, its summer resorts, its undeveloped mines, its great possibilities for stock raising, including goats and sheep, in addition to unsurpassed conditions for dairy pursuits and truck and fruit farming are among its prominent resources. The raising of grapes and peaches are profitable industries, while oyster culture also is reaching large proportions.

Transportation and Markets: Daily steamboat transportation connects the Sound and Canal landings with the large cities on the Sound. A spur of the Northern Pacific Railway Company enters the county on the south and several logging roads penetrate the timbered recesses of the interior forests, carrying their products to the main line or to the water front. Good automobile roads extend to all of the little towns and pleasure resorts. The large Sound cities take all the produce not consumed by the neighboring communities.

Social Conditions: Outside of the county seat, it may be said that most

of the really social functions are performed by the summer campers who delight in this region for its exceptional hunting and fishing advantages. Lake Cushman is famous as a resort. There are 40 school districts in the county and 19 postoffices. The county seat has a three-story high school building that cost over \$20,000.00.

CITIES AND TOWNS.

Shelton: Altitude 40 feet. County seat. Population 1910, 1,163. Local estimate 1,400. The only incorporated city in the county and the metropolis of the region. Located on Hammersley Inlet at the mouth of Shelton Creek with all the resources of the county to support it. Sustaining industries at present consist of lumber and shingle manufacturing, oystering, and general farming. The machine shops and railroad yards of a logging road are here. City has four churches, a high school, a private school, two grade school buildings and one newspaper. Electric lights and municipally owned water are enjoyed. Transportation is by boat to Olympia and Tacoma. Freight shipments are ferried to the rail connections.

Other towns and resorts of the county are, Union, Potlatch, Hoodsport, Dewatto and Lilliwaup on Hood's Canal; Detroit, Kamilche, Arcadia, Allyn, Grant on the Sound; and Norwood, Lake Cushman, Matlock and Mohrweis in the interior.

KITSAP COUNTY.

This county is almost completely surrounded by Hood's Canal and the waters of Puget Sound which, with the many indentations, produce a shore line of about 300 miles. It has a land area of 371 square miles with maximum elevation of about 300 feet. There are no mountains but about 60 per cent of the surface is gently rolling and the rest level, divided up into various fertile valleys, benches and plateaus. There are few steep places even near the water front, which in many localities supply ideal beaches for swimming or bathing and pretty spots for the summer homes of city dwellers.

A large portion of the land area is taken up by Bainbridge island, about 9 miles in length and one to 4 miles in width. On it are located many summer homes, camping grounds, mill towns, and ranches. Several smaller islands are also in the county.

Population: The census of 1910 gives the county 17,647, an increase of 161 per cent in ten years. A small majority are American born, the remainder being mostly newly arrived Scandinavians who nearly dominate some localities, also a large number of German and British subjects, some Finns, Icelanders, French, Danes, Hungarians and a scattering of other nationalities.

Lands: In 1910 of the total area of 237,440 acres, only 42,332 were in farms, and only 9,161 acres of this were improved. There are altogether about 75,000 acres of logged-off land and about 42,788 acres of timber land. The state holds 12,277 acres. 7,287 acres are included in the Port Madison Indian reservation and about 1,304 are in military reserves.

Soil and Crops: The land is exceedingly fertile. All is adaptable to some sort of culture. Hay, berries

including cranberries, potatoes, and other root crops attain extraordinary yields. Fruit does well and dairying is very important. The soil is generally sandy loam and shot clay with some rich alder bottom.

Prices of Land: Prices of unimproved land of which there is considerable, is quoted at from \$10.00 to \$60.00 per acre with terms very favorable. The cost of clearing and grubbing varies from \$50.00 to \$150.00 per acre. Land cleared and under cultivation is worth \$100.00 and upwards per acre according to quality of soil, extent of improvements, and accessibility to landings and markets; none of it, however, is more distant than six miles from these facilities. Many settlers have become wealthy from the profits of land worth the above prices.

Climate: Since the county is practically surrounded by sea water and the elevation averages 100 feet, the air is delightfully tempered and kept pure and fresh. The rainfall for 1911 was 24.6 and for 1912, 38.77 inches. Three-quarters of it falls from November to May and the remainder usually falls at such intervals as to insure good crops.

Resources and Industries: Besides its rich lands adaptable for agriculture, the county has between one and two billion feet of standing timber that for years to come will maintain many a large logging camp and lumber mill. Fishing supports many while much prospecting for petroleum is at present being carried on. Poultry raising and truck farming are specialties on account of ideal conditions, proximity of big markets, and cheap transportation. Sheep, cattle, and hog raising are becoming important. Some manufacturing is carried on especial of lumber and wood products. At Eagle Harbor are a shipyard and creosoting plant.

Water: Some irrigation is practiced in orchards and in truck farming but is not generally needed. The county is veined with small streams and springs, and wells are easily obtained at shallow depths. Water for domestic purposes is pure, soft and abundant, while sulphur springs cause numerous health resorts. No water power sites are at present being utilized although the McKenna Falls would be suitable to furnish light and power to the entire county.

Markets and Transportation: The local markets of Bremerton, Port Or-

chard, Charleston, and Manette, consume a great deal of the farm produce, while any surplus goes to Seattle and Tacoma or is marketed abroad. Three rival steamboat lines make round trips from all landings to the large cities of the Sound at fares seldom exceeding one cent per mile. Good roads intersect all parts of the county and are passable the year round. There are no railroads in the county.

Wages: Are practically the same as across the Sound for common and skilled labor. Milkers command \$40.00 to \$50.00 per month. Mill hands receive from \$2.25 to \$2.75 for common labor, while mechanics get from \$3.00 to \$7.00.

Social Conditions: The county is well supplied with schools, churches, traveling libraries, postal service, and grange halls. The villages are connected with each other and with the cities by telephone and cable. Literary and musical clubs are features of the community life. People are generally well to do. Seattle and Tacoma being so easily reached have much influence on the social life. There are 40 post-offices, 61 school districts and 9 high schools.

CITIES AND TOWNS.

Port Orchard: (County seat.) Altitude, tide level. Population 1910, 682. Local estimate 1,200. An exceedingly pretty town on a bay of same name. It is one mile distant, and across the bay, from the United States Puget Sound Navy Yard from which it derives considerable support. The chief industries are shingle mills, a creamery and a machine shop. It has an excellent waterworks system, good schools, including a high school, three churches and other public buildings. The Washington Veterans' Home is located here.

Bremerton: Altitude 50 to 200 feet. Population 1910, 2,993. In 1900 it was part of town of Charleston. This is most noted for being the base of the United States Naval Station of Puget Sound, with its huge dry docks and immense payroll, employing about 1,500 men. City has good waterworks, electric lights and telephone service, one high and two grade schools, eight churches, substantial public buildings, two newspapers, public library and public park. Here is held the annual County Fair in September and Rhododendron Festival in May. It occupies a beautiful scenic position on Port

Orchard Bay and is the social center of the county.

Charleston: Population 1910, 1,062. Local estimate 1,600. It is contiguous to Port Orchard and Bremerton and adjoins the naval reservation from which its main support is derived. It has grown rapidly since its incorporation in 1903 and is at present well supplied with public utilities. It has two churches, a high school and weekly paper, also electric lights, water system, and volunteer fire department.

Poulsbo: At the head of Liberty Bay with a population of about 400. It is really the supply point and social center for over 1,500 people. Its main industries are lumber manufacturing and cod fish canning. Poultry raising is also important. It has one newspaper, a high school and three churches. About twenty-five business institutions are represented. Transportation is by boat.

Manette: Altitude about 100 feet. Estimated population 600. A pretty town across from Bremerton and surrounded by fruit and chicken ranches. A ferry connects with Bremerton every 45 minutes. Seattle steamers stop here. Good church and school facilities are enjoyed.

Brownsville: Altitude 50 feet. A saw mill town close to the Sound. Church and school facilities are sufficient. Water transportation.

Colby: A lumber and shingle town of about 500 people, located on Yukon Bay of Puget Sound. Two boats run daily to Seattle. Town has two churches, a high school and one private school. Many cedar poles and much pile timber are cut here.

Port Blakeley: Population (local estimate) about 400. A saw mill town prettily located on a small bay on the east side of Bainbridge island just across from Seattle. It has a box factory, a ship yard, two churches and ample school facilities.

Rolling Bay: Altitude 140 feet. A summer resort for Seattle people and located on the east side of Bainbridge island. Two boats touch here daily in the winter and four in the summer. Town has two churches, a newspaper and good schools.

Tracytown: Altitude, sea level. A farming center located on Port Washington Bay, with pretty beaches, camping grounds, and woods surrounding. Steamers make three round trips to Seattle daily. Church and school facilities are ample.

Other important centers are Waterman, Silverdale, Nellita, Manchester, Lofall, Creosote, Burley, Chico, Keyport, Seabeck, Crystal Springs, Bangor, Olalla, Port Gamble, Port Madison, Eagle Harbor, Glenwood, besides many other prosperous little villages and mill camps.

JEFFERSON COUNTY.

This is one of the counties forming the Olympic Peninsula. It has the Pacific Ocean for its western boundary and Puget Sound for its eastern. It contains approximately 1,920 square miles of land about 1,200 of which are included in the great Olympic Forest Reserve. The heart of the region, a very rugged and mountainous section of nearly 100,000 acres, constitutes the Mount Olympus National Monument and so is closed temporarily to all development. Across it extends the snowcapped Olympic Mountains, while Mount Olympus, towering as a silent sentinel 8,131 feet, is a mecca for many a tourist band of mountaineers' daring intimacy with one of nature's masterpieces. Emulating this in ruggedness is Mount Constance 7,777 feet in height.

Population: In 1910 there were 8,337, an increase of 22 per cent over the census returns of 1900. Most of the people are in the eastern end of

the county and occupy the peninsula formed by Puget Sound, Hood's Canal, and Discovery Bay. The rest are scattered along the shores of the canal and in the valleys formed by rivers flowing into the Pacific Ocean. Many nationalities are found here on account of Port Townsend being the Puget Sound headquarters for a number of United States departments.

Lands: The total area of the county is 1,118,080 acres, of which the Olympic National Forest takes 730,080 acres, Indian reservations 640 acres, Military reservations 4,887 acres, unappropriated lands 427 acres, and State lands 73,150, leaving less than 300,000 acres for private occupancy. Of this in 1910, 31,518 acres were in 5,712 farms, containing 6,554 improved acres, the average improved land per farm being 25 acres. Numerous streams from the timbered mountains have deposited a rich organic soil in the small deltas and valleys formed by the rivers. On

these and the rolling uplands that have been redeemed from the forests nearest the water are the agricultural and dairying activities of the county.

Prices of Land: Unimproved land will cost from \$10.00 to \$50.00 and upward, while the improved will cost \$100.00 to \$300.00 and up according to soil, location and nature of improvement.

Natural Resources: The resources are greatly varied and practically untouched. The mountains contain many billions of feet of first class timber reserved and many billions more privately owned. The timber here is remarkably thick, running as high as 50,000 feet for a single acre. There are also numerous districts containing gold, copper, silver and other precious metals, open for entry but so far very little worked. It is believed large oil fields exist and they are being prospected. The waters teem with fish which keep large canneries busy at various places. Immense lumber and shingle mills are devouring the products of numerous logging camps. There is no limit to the possibilities for the dairy and stock business, while the scenic, sanitary and climatic conditions are building up health and tourist resorts. This is also a good locality for the poultry industry. Pure water is abundant everywhere and thousands of horse power are running to waste.

Transportation: The Port Townsend Southern runs 26 miles south to Quilcene. The Milwauke system will probably connect with this from its main line in Thurston county while the Northern Pacific Railway Company is planning to tap the valuable resources in the west by extending the Grays Harbor branch northwest from Moclips, Chehalis county. A permanent State Highway that will entirely circle the county has been authorized. Good wagon roads reach all those portions now inhabited. The Inland Navigation Company furnishes three vessels daily to Seattle, Bellingham and peninsular points.

Markets: All surplus products find a ready market at the large Sound cities, but practically all the farming and dairy products are consumed by the cities and towns of the county and the logging and fishing camps, military forts, and resorts. Shingles are scowed across the Sound and most of the lumber is loaded onto deep sea vessels for foreign markets.

Wages: The usual wages for farm

labor are \$30.00 to \$35.00 per month and board or \$2.00 to \$2.50 a day without board. The general common labor wage is \$2.50. Skilled workmen get \$3.00 per day and upward. "Stranders" from the mills and fisheries supply the usual demands except at harvest time.

Social Conditions: In the isolated districts social development would naturally be backward but, in the cities and towns near the water and easily accessible, advancement is made in the esthetic as well as in the necessities. Schools and churches are maintained wherever needed and general hospitality obtains throughout the region. The resort features attract many outside people. There are 30 school districts and 23 postoffices.

CITIES AND TOWNS.

Port Townsend: County seat. Population 1910, 4,181; 1900, 3,443. Increase 21.5 per cent. Located on Quimper Peninsula at the entrance to Puget Sound. It is the metropolis of the county and headquarters for Puget Sound of the United States Coast Artillery, Revenue Cutter Service, Marine Hospital Service, Quarantine Service, and Hydrographic Service. It has a municipal water works, sanitary sewers, gas and electric lights, and telephone, cable and wireless communications. Its principal industries consist of two salmon canneries, a fertilizer manufacturing plant, saw mill, a brewery, and several wood working plants, including a boat building works. It has a four-year high school, seven churches, a public park, and one daily paper. Transportation is chiefly by steamer, although 26 miles of railroad extend to Quilcene.

Chimacum: Altitude about 180 feet. Located at the mouth of Chimacum valley. A wonderful dairying section. It is famous for registered Holstein Friesian cattle, some of which hold world records. Church and school facilities are ample.

Clearwater: Altitude 150 feet. A fishing, farming and timber center, located near mouth of Clearwater river. Nearby are oil and mining prospects. Good school facilities exist. Transportation is by boats. The Northern Pacific railroad comes to Moclips some distance to the south.

Fairmont: Altitude 10 feet. A shingle and lumber mill town located on Port Townsend Southern railway 12 miles from Port Townsend. Many fish are caught in vicinity and the

agricultural land has possibilities. A good school is maintained.

Hadlock: An agricultural village located at head of Port Townsend Bay. An alcohol distillery plant is here. School work extends through the 10th grade.

Port Ludlow: Population, local estimate 600. A saw mill town beautifully located overlooking the Sound. Good school facilities are provided. Townsites and improvements are owned by the Puget Mill Company.

Quilcene: Population (local esti-

mate) 600. A lumber and fishing town located at the terminus of the Port Townsend Southern railway. Three steamers a day to Seattle. Farm lands, mineral lands, and oyster lands are adjacent. The United States fish hatchery is located here. Town has two churches, a high school and weekly paper.

Other agricultural centers are Coyle, Leland, Shine, Spruce, Irondale, Brinnon, Duckabush, Port Discovery, Port Flagler, Hoh and Center. At Irondale is the only Pig iron plant in the state.

CLALLAM COUNTY.

The Strait of Juan de Fuca and the Pacific ocean bound this county on the north and west giving it about 150 miles of waterfront and a number of splendid harbors. The entire central and southern area is occupied by the Olympic Forest Reserve, which includes also a portion of the Mount Olympus National Monument. The occupied and cultivated lands lie along the strait and coast shores. Much of the county is rugged and mountainous and all has been densely timbered. There yet remain fifteen billion feet of uncut timber on private holdings and as much more in the great forest reserve.

Population: The 1910 census gives 6,755, but the influx since has been rapid because of several large activities. There are probably over 10,000 now. Of the foreign born, Scandinavians, Swedes, Norwegians and Germans are in the lead. Dutch and Swiss take naturally to the agricultural features.

Land and Soil: Of the entire 1,104,640 acres within the limits of this county, 530,480 acres are included in the forest reserve, 24,517 acres are in three Indian reservations, 2,200 acres are unreserved and unappropriated federal lands while 73,086 acres are state lands. The forest reserve contains practically all of the mountainous land although there is some precipitous area near the water. On the plateaus or along the streams, however, further back from the coast and especially toward the northeast, considerable level or rolling land may be found. This is very rich and capable of intensive cultivation. The 1910 census showed 62,248 acres of farm land in occupation with only 16,708 acres of it improved in 607 farms. The soil is from one to ten feet deep, very rich

and best adapted to hay, grasses, fruits, berries and dairying.

Prices of Land: Most of the cut over land is held by large owners, but near Sequim and Port Angeles there is considerable in small holdings which may be purchased at from \$10.00 to \$25.00 for logged-off and unimproved and \$75.00 to \$250.00 for improved, its productiveness making these values reasonable.

Wages: The prices given for farm work are \$35.00 to \$40.00 per month and board. \$2.50 to \$3.00 is the prevailing wage for unskilled workmen and \$3.50 to \$6.00 per day for skilled workmen. Mill construction, railroad building and fishing are lines that employ much labor.

Climate: The climate is mild and equable and the precipitation varies from 120 inches in the southwestern corner to less than 20 in the northeastern. As a whole the climatic conditions are so favorable as to make the northern shores and inland lakes famous as health resorts. Even in the rainy region there are more sunshiny than cloudy days, the heavier rains taking place in the winter months. There are no extremes of heat or cold and seldom any lightning or thunder.

Irrigation: On account of the comparatively small rain fall in the northeastern part of the county and the rather gravelly nature of the soil, irrigation has been tried and found very beneficial, especially at Sequim, where the largest single body of irrigated land in western Washington is to be found.

Resources: For many years the vast timber resources will provide many industries, but fishing and the packing of fish—now a considerable industry, may ultimately supersede it.

Both industries—if the mountainous land is reforested, and the propagation of fish proves successful—will be everlasting in this county. Dairying and cattle raising on the immense area of logged-off lands may reach large proportions. A million dollars worth of these products was marketed in 1912. It is known that the county is highly mineralized and there are surface indications of oil, but so far no values have been obtained although much prospecting is now being done. With the advent of the railways, which are now building, manufacturing will be carried on extensively. Already almost every little port contains its lumber and shingle mill and preparations are now under way to meet increased transportation facilities in a large way by furnishing plenty of tonnage. Water power is extensive and very little developed. Seven miles west of Port Angeles on the Elwah river is the Olympic Power Company's plant, the initial installation of which will develop 6,000 K. V. A. at 100 head. This plant will supply power to Port Angeles, Port Townsend, Bremerton, Fort Warden, Fort Flagler and the United States Navy Yard at Bremerton.

Transportation: The county at present has no railway outlet, but this defect will soon be remedied as the Milwaukee system is now building in and the Northern Pacific railway is expected to do so. There are several small logging roads and one ten miles in length from Port Crescent to large timber holdings. The passenger and freight work is done by competing steamboat lines out of Seattle which touch all landings in the strait, and by some craft that ply the Pacific coast beaches. A state highway is designed to girdle the Olympic Peninsula.

Social Conditions: The rural towns are provided with schools and the county seat with a four-year high school. Nearly all religious denominations are provided with churches. There are some mountain and lake resorts that are patronized mostly by people from the Sound cities and by tourists. A fruit fair is held in August and a rose carnival in July. There are 46 school districts and 22 post-offices.

CITIES AND TOWNS.

Port Angeles: County seat. Population 1910, 2,286. A rapidly growing and progressive town, situated on a commodious and safe harbor in the strait, with the towering Olympics at the rear. With enormous quantities of standing timber behind and teeming fish in front, every reason for large industries exists. It already has a number of saw and shingle mills and other wood working industries while the building of one of the largest and most modern lumber mills in the world is under way. It has waterworks and electric lighting system, a high school and four grade schools, eight churches, a volunteer fire department, three weekly newspapers and a large brewery. It is preparing for the advent of the railways by improving its harbor front at great expense.

Sequim: Altitude 140 feet. Population (local estimate) 400, and 2,000 in voting precinct. Located in north-eastern part of the county three miles from salt water and on line of new railroad now building. General farming and dairying are very important in the neighborhood. Town has two saw mills, three shingle mills, two large creameries, and clam and fruit canneries. Three churches, a high school and weekly newspaper are maintained. An irrigation festival is held annually. Present transportation is by steamboat.

Dungeness: Altitude 10 feet. A village of about 200 located in the midst of a rich dairying section. Steamboat transportation. High school and a Methodist church.

Port Crescent: Altitude 230 feet. A small village devoted to lumbering and kindred industries. The country near is attractive to tourists. Dairying, general farming, and fishing are important.

Neah Bay: An old Indian village in the northwest corner of the county within the Makah Indian reservation. Many fishermen are here in the summer time. One fish cannery is operated.

Other centers are Sol Duc, a famous resort, Bever, Forks, Gettysburg, Mora, Port Williams, Clallam Bay, Quillayute and Blyn.

SOUTHWEST WASHINGTON.

CHEHALIS COUNTY.

This county occupies the central space within the tier of counties bordering directly on the Pacific. It has 60 miles of ocean beach and an area of 1,927 square miles including the Quinault Indian Reserve, which, together with the southern fringe of the Olympic Forest Reserve, takes four-tenths of the northern townships.

Natural Features: A large proportion of the county is fairly level and is intersected by many streams, the most important of which is the Chehalis river, crossing from the east and navigable to the center of the county. Other smaller rivers are the Humptulips, Hoquiam, Wishkah, Wynooche and Satsop, paralleling each other from the north and draining the larger part of the county into Grays Harbor or the Chehalis river. Grays Harbor has an area of 97 square miles and is navigable to vessels of 20 feet draught. The whole county was once densely timbered, the uplands with fir, spruce, cedar and hemlock, and the river lands with cottonwood, larch, maple and other soft varieties.

Population: The 1910 census gives the county 35,590 and the 1900 census 15,124, showing an increase of 137 per cent. The people are in large majority native born Americans. Swedes, Norwegians and Germans make up the bulk of the foreign born element. Most of these, however, had acquired our language and habits in other states before coming to the county.

Land and Soil: The total area is approximately 1,233,280 acres, of which 65,190 acres are state lands and 168,280 acres are forest reserve. It is estimated that over eight billion feet of timber has been removed, producing about 200,000 acres of logged-off lands, and that such area is increasing at the rate of 20,000 acres annually. Including this and the bare river bottoms, there have been redeemed altogether not over 85,000 acres of farm area. Not more than 27,000 acres of this are highly improved. A large portion of the country is fairly level or gently rolling, while much rich bottom land has been formed in the valleys of its many streams. When cleared, nearly all this will prove to be choice agricultural land.

Soils: The soils here are a dark vegetable loam, best adapted for soft grains, hay and vegetable farming; the uplands of the rolling prairies consist of shot clay and enriched fern soil, ideal for fruits, berries and dairy forage, including alfalfa. Near the tide water is considerable rich cranberry marsh, a few acres of which have already been cultivated. A larger area is at present being prepared for this industry. Upon the elevated stump land thousands of sheep and goats could be turned loose with profit both to the sheep and to the lands. For intensive farming or horticulture, 10 to 20 acres is ample.

Prices of Land: Much unimproved land can be bought as low as \$10.00 per acre, but that nearest to towns and railroads will run considerably higher, sometimes up to \$50.00. Improved lands would have the added cost of the improvements. River bottom in seed for hay is worth from \$100.00 to \$225.00. Bench land suitable for crops brings \$50.00.

Climate: A study of the climatological table will show that this county gets plenty of rainfall. The rains are usually warm while the greater precipitation is in the winter months and close to the ocean. The annual mean temperature for 1912 was 49.8 in Aberdeen. The summer weather is considered ideal, while the winter rains prove healthful and invigorating. One can engage in outdoor employment practically the entire year. Pure water for domestic purposes is plentiful.

Natural Resources: Forest products and the manufacturing therefrom will constitute the main sources of revenue for decades to come. With reforestation such resources may be made interminable. Ultimately, when the growth of alfalfa is understood, the ground will yield even greater values in the form of forage and animal products. All domestic animals thrive; mountains, lakes, and streams are alive with game and fish. The ocean is a store house of wealth, yielding millions of salmon yearly. The annual output is worth about \$250,000.00. Oysters, clams and crabs produce large revenue and here is the only whaling station in the United States,

which in 1912 yielded 210 whales worth over \$500,000.00. As a seaport and ship building center it will always take front rank. Strong evidences of petroleum and coal indicate another fruitful resource. Pleasure and health resorts are numerous.

Timber: A recent cruise of timber still standing on public and private lands gives the following enormous figures in board feet: Fir, 13,007,540,642; spruce, 1,754,230,180; cedar, 3,153,394,157; hemlock, 2,719,231,034; balsam fir, 63,124,750; pine, 16,027,600; larch, 15,790,500; cottonwood, 3,055,500. In addition, the dead standing fir amounted to 732,354,200 B. F., and prostrate good timber 795,299,746 B. F., while the cruisers' rough guess estimated the forest and Indian reserves to contain 14 billion feet more of merchantable timber. This is one of the most densely timbered counties in the state.

Markets: Its own large cities afford ready markets for nearly all the land products of the county. Most of the lumber goes abroad and its shingles by rail to eastern states. It is not yet producing enough animal and poultry products for its own needs. Fish, crabs, clams, fruit and vegetables preserved by its canneries are either locally consumed or easily marketed.

Social Conditions: The pioneer work of the county has been accomplished and it has entered that period of civilization when the higher social advantages are appreciated. Modern schools, churches, libraries, parks, hospitals, banks, theatres, club buildings, fraternal societies and other christianizing and civilizing institutions are generously provided. There are 34 post offices, and 58 school districts.

Transportation: The principal cities and towns are reached by the Northern Pacific, the Oregon-Washington Railroad & Navigation and the Chicago, Milwaukee & St. Paul main lines. Regular packet steamer lines connect with California ports; numerous coastwise passenger and freight vessels run between all coast points, while a fleet of timber carrying schooners, and tramp vessels of various kinds go to nearly all parts of the world. The harbor cities are connected by an electric trolley system and the interior towns by excellent roads, the natural drainage of the county lending itself to the preservation of highways. The Olympic high-

way will traverse nearly a hundred miles of the county.

Labor and Wages: The large industries of the harbor cities; the fishing and packing of fish; the public improvement activities, in addition to the requirements of husbandry, create a healthy demand for labor. Unskilled labor receives from \$2.00 to \$2.75 per day and skilled from \$3.50 to \$8.00. Milkers get \$35.00 to \$50.00 per month with keep, and harvesters from \$2.50 to \$3.00. Fishermen will usually net from \$1,000.00 to \$2,000.00 per year.

CITIES AND TOWNS.

Montesano: (County seat). Altitude 65 feet. Population 1910, 2,488. Local estimate 3,000. At the head of navigation on the Chehalis river and on the line of all the railways that traverse the county. It has two saw mills, a planing mill, three shingle mills, a condenser, incubator factory, one high and three grade schools, eight churches, two newspapers, three miles of paved streets and a half million pay roll.

Aberdeen: Altitude 15 feet. The metropolis of the county. Incorporated. Population 1910, 13,660; 1900, 3,747; increase, 251%. Local estimate, 17,500. Located on Grays Harbor in one of the richest timber sections of the state, the lumber industry gave it a great impetus forward. Its future advancement is assured not only from further development along this line, but also from the growth of the surrounding rich farming country suitable for dairying, general farming, and fruit growing. It has saw and shingle mills, fish canneries, sheet metal works, sail lofts, cigar factory, two ship building plants, a flouring mill, brewery, a gas and electric light plant, street car system which connects with adjoining towns, forty-five miles of paved streets, a public library, gravity water system and sanitary sewers, a paid fire department, a daily paper, two weeklies, two monthlies, and one semi-weekly. A high school and six grade schools, ten churches, a Y. M. C. A., splendid club buildings and fifty fraternal lodges are maintained. Train service is supplied by the Northern Pacific, Chicago, Milwaukee & St. Paul and the Oregon-Washington Railroad & Navigation railroads.

Hoquiam: Altitude, 14 feet. Population 1910, 8,171; 1900, 2,608; increase 213%. Local estimate, 11,000. On

Grays Harbor. In resources and future prospects it is similar to Aberdeen close by, and with which it is connected by trolley cars and all railroads. It has paved business streets, sewers, waterworks, gas works, electric lights, paid fire department, telephone, commission form of government, public parks, a library, ten churches, a high school, four grade schools, one Catholic school and one daily and one weekly newspaper. There are altogether sixteen manufacturing concerns, including very large lumber and shingle mills. Principal industries are logging, fishing, salmon and clam packing, whaling and ship building. It has a Y. M. C. A. building, two banks, three theaters, and is building a \$125,000.00 high school. Transportation facilities are the same as for Aberdeen.

Cosmopolis: Altitude 15 feet. Incorporated. Population 1910, 1,132; 1900, 1,004. Local estimate, 1,500. Across the Chehalis river from Aberdeen and connected with it by trolley. It is served by the Milwaukee, the Oregon-Washington Railroad & Navigation, and the Northern Pacific railroads. Its principal industries are lumbering, salmon packing, and farming. It is also a shipping port for coast wise schooners. It has two churches, a high school, one newspaper, paved streets, electric lights, water works, and a fire department.

Elma: Altitude 75 feet. Incorporated. Population 1910, 1,532; 1900, 894; increase, 71%. Local estimate, 1,532. Located in the rich farming district of the Chehalis valley and reached by all main line railways. At this point a logging spur of the Northern Pacific railroad leads north into Mason county. It has a bank, one weekly paper, a fire department, good schools and seven churches. The county fair grounds are here and the fete is held annually in October. This is the center of a large dairy region and has the only fruit growing association and fruit cannery in the Grays Harbor country. Free factory sites are offered.

Oakville: Altitude 78 feet. Popula-

tion 1910 census, 465. Local estimate 600. Located in the Chehalis river valley on the line of the Northern Pacific and Chicago, Milwaukee & St. Paul railroads. Fertile prairie lands are all around, while much timber is in the immediate vicinity. Principal industries are lumber and shingle manufacturing and shipping of Casca bark. Fifty thousand pounds of this are shipped annually to New Jersey. Its average selling price is 6½ cents per pound. Town has three churches, high school and weekly paper.

Westport: Altitude, sea level. Population estimated at 250. A summer resort located near the entrance to Grays Harbor. The Grand Army of the Republic for the Department of Washington and Alaska hold their annual summer reunions here. The Northern Pacific railway runs two trains daily to Bay City, two miles away. The fishing industry is important, and a large clam packing establishment is maintained.

McCleary: Population (local estimate) 900. Big Lumbering interests are here. Town has a saw mill, two shingle mills and a sash and door factory, also a Methodist church, and a four room grade school. Surrounding country is rich in agricultural possibilities. The Northern Pacific trains supply transportation.

Junction City: Altitude 15 feet. Population (local estimate) 400. Located on the Chehalis river with deep water frontage available. The Northern Pacific railway furnishes daily passenger service. The Olympic highway passes through the village. Good bottom lands highly adaptable to truck gardening are near. School facilities are ample.

Melbourne: Altitude 18 feet. A farming and logging center served by the Oregon-Washington Railroad & Navigation and Chicago, Milwaukee & St. Paul railways; also by the Chehalis river. Village has a grade school.

Other principal towns of the county are Moclips, Satsop, Humptulips, Ocosta, Bay City, Aloha, Quinault, Markam and Lone Tree.

PACIFIC COUNTY.

Pacific county, situated in the extreme southwestern part of the state, overlooks the great Pacific ocean on the west, while its southern boundary is formed by the Columbia river and

the county of Wahkiakum. The general slope is toward the west and the elevation varies from tide level to about 1,500 feet. Ten small rivers carry most of its drainage into Willapa

Bay, which covers about 150 square miles of additional area lying practically within its limits. The entire land area is 895 square miles, a large portion of which is of a rolling nature. The greater portion of the county is still covered with valuable timber.

Population: The 1910 census credits the county with a population of 12,532, representing an increase of 109.5% over that of 10 years previous. A decided growth has continued since that enumeration, especially within the cities of South Bend and Raymond. Americans predominate, with Scandinavians, Germans, Finns and Greeks following in the order named.

Lands: Of the 572,800 acres of land within the county 54,202 acres are state lands, while the remainder, excepting a few acres of Government land, has passed into the hands of private owners. Not included in the above area there are, on Willapa Bay and its tributary rivers, about 25,000 acres of rich tide lands suitable for agriculture, and 15,000 acres of oyster grounds. Of the other lands not more than 50,000 acres are in farms. Altogether about one-half of the county is suitable for agriculture. The other portion would be valuable for pasturage. The peninsula forming the western boundary of Willapa Bay is flat and low and contains between 3,000 and 4,000 acres adapted to cranberry culture, an industry which bids fair to increase in importance. Much of the best agricultural area is either bottom land or bench land.

Soil: The soil in the valleys is a rich sandy loam. On the benches it is a black loam comprised largely of a vegetable decay accumulated for thousands of years. It is from one to fifteen feet deep and has a subsoil of yellow or blue clay. The tideland soil is black loam mixed with vegetable decay.

Prices of Land: Unimproved land may be purchased at prices ranging from \$5.00 to \$40.00 per acre. Improved, it will cost from \$100.00 to \$250.00 per acre. From ten to twenty acres of the best land makes a nice little farm for the usual family. Lands may be leased for one-third of the product or on a cash rental basis.

Resources and Industries: The chief resources of the county are wrapped up in its heavy timber, its oyster and salmon fisheries, and in its fertile dairying and truck gardening lands. About 350,000,000 feet of lumber is manufactured yearly, while the

standing timber amounts to about 13,000,000,000 feet. A million dollars worth of oysters and \$150,000.00 worth of salmon are fished yearly. Dairying and truck gardening each produce about \$100,000.00.

Water: The water supply for domestic use is practically unlimited and of excellent quality. The streams having a known horse power for manufacturing enterprises are: Nasel, 5,000; North, 2,000; Smith, 1,000; South Fork of the Willapa, 700; Palix, 700; Willapa, 500. The other streams all carry large volumes of water, but the horse power has not yet been determined.

Transportation and Markets: The Northern Pacific railroad branch line from Chehalis to Raymond and South Bend is the chief railroad. The Oregon-Washington Railroad & Navigation Co. has a short line extending from Megler, in the south end of the county, to Nahcotta, serving some nineteen ocean beach summer resorts. Steamers connect with trains at Megler for Portland and Astoria and at Nahcotta for South Bend and Raymond. The Chicago, Milwaukee & St. Paul has commenced a branch extending from Independence to Doty and thence to the harbor. Daily steamers connecting all bay points furnish transportation for the southern portion of the county, while ocean going vessels carry cargoes to California and foreign countries. County roads, good at all seasons of the year, extend in various directions, while the National Park Highway, a state primary road, will soon be built from the southwest into Lewis county. The main products enumerated are sold in the markets of the world, while Raymond and South Bend consume practically all the dairy and farm products at the present time.

Wages: Wages paid for farm labor, including board, range from \$40.00 to \$60.00 per month, while the prevailing price for the same labor without board is from \$2.25 to \$2.50 per day. Carpenters get from \$4.00 to \$6.00 a day and other skilled workmen from \$3.00 to \$5.00, the usual compensation for ordinary unskilled labor running from \$2.25 to \$3.00.

Social Conditions: Churches of various denominations have been established wherever needed and public libraries are maintained in the larger centers. There are 48 school districts and 28 post offices. Telegraph and telephone service is ample. A county fair is held annually and stimulates

scientific farming. The famous North Beach line of summer resorts, covering 28 miles of ocean beach, attract thousands of people every summer to enjoy the ocean surf or the pleasures attendant upon bathing, boating, fishing and clam digging.

CITIES AND TOWNS.

South Bend: County seat. Altitude, tide water. Population 3,023 (U. S. census 1910). Local estimate, 4,500. American and Scandinavian. Located at the head of deep water navigation on Willapa Bay and the Northern Pacific railroad. Steamship service to San Francisco, Hawaiian Islands, Hong Kong, etc. The main industries are manufacturing and dairying. The recent improvements made by the Government on the harbor bar will prove an important factor in the upbuilding of this city as well as the sister city, Raymond, and other towns located on the bay. There are now in active operation three large saw mills, several shingle mills and salmon canneries, an iron and steel works, a boat building establishment, three oyster opening and canning plants, a cigar factory, a furniture and cabinet works, an ice manufactory and bottling works, and a box factory. The monthly payroll is from \$40,000.00 to \$60,000.00. Churches of all denominations, one high and two grade schools, a free public library, a telegraph and telephone system and two weekly newspapers are supported. The leading thoroughfares are paved and the walks concrete. Free sites are offered for factories of merit. An electric railway connects with Raymond.

Raymond: Altitude, tide water. Population 2,450 (U. S. census 1910); local estimate, 5,500. American and Scandinavian. Transportation facilities identical with those of South Bend. This is a young city scarcely six years old and built up chiefly by the lumber industry. It already has many manufacturing enterprises with a large yearly payroll. Among these are six saw mills, four shingle mills, two veneer plants, a sash and door factory, a ship yard, a foundry, machine shop and a boiler works. Manufacturing sites are free and there is plenty of room for plants to manufacture various wooden utensils out of raw material now going to waste. There are four

churches, one high and four grade schools, also a free employment bureau. Two weekly papers and a volunteer fire department are supported. Streets are paved or planked and an electric car line connects with South Bend, which city it resembles in future possibilities.

Ilwaco: Altitude sea level. Population (1910 census) 664. Local estimate 850. Located on Bakers Bay at mouth of Columbia river. Summer resorts and cranberry and dairy lands are tributary. Oregon-Washington Railroad & Navigation trains run daily and many steamers reach this town from Portland and Astoria, Oregon. The principal industries, in addition to the summer resort features, are fishing, logging, farming, stock raising, fish canning and fruit raising. City has ample church and school facilities and supports a weekly newspaper.

Frances: A logging town with a population of about 300 and located on the South Bend branch of the Northern Pacific railroad. It has a three year public high school and a Catholic church and school.

Oysterville: A fishing town located on the peninsula $3\frac{1}{2}$ miles from the Oregon-Washington Railroad & Navigation railroad. Fish, clams and oysters are canned here.

Nasel: A small village in the midst of a timber region on the Nasel river and accessible by small launches and a wagon road to Knappton. It has two churches and school work up to 10th grade.

Nahcotta: An oyster village located on the peninsula at the terminal of the Oregon-Washington Railroad & Navigation railway. Daily boats connect with South Bend and Raymond.

Long Beach and Breakers: Ocean summer resorts on the peninsula. The O. W. R. & N. trains connect with Columbia river and harbor steamers. The towns have electric lights and school and church facilities. Hotels are attractive and contain all modern conveniences.

Other centers, some of which are summer resorts and others fishing villages or lumber towns, are Knappton, North Cove, Willapa, Tokeland, McGowan, Klipsen Beach, Holcomb, Frankfort, Chinook, Bay Center, and Lebam.

WAHAKIACUM COUNTY.

This county is in the southwestern part of the state and fronts on the Columbia river. Numerous islands in the river—which at this point is from a mile to seven miles wide—belong to the county, giving it upwards of 30 miles of shore line. It is the smallest mainland county of the state and contains but 267 square miles. It is intersected with several rivers, the valleys of which afford the farming area of the county. The interior is mountainous and rocky and heavily timbered, but along the shores of the Columbia, and Gray's river entrance to that river, much logging of timber has been accomplished, enabling the clearing of considerable of the bench and bottom lands.

Population: The 1910 census gives the county 3,285, an increase since 1900 of 466, or 16 per cent. 1,965 are native born and 1,095 foreign born, with Finlanders, Norwegians and Swedes predominating.

Land and Soil: The county contains a total of 170,880 acres, of which 29,030 acres were reported in 229 farms having 4,856 acres improved. This region is conceded to be ideal for dairying, which industry may be largely extended by clearing up the rich muck land bottoms, first bench lands and grazing lands in the already logged-off area. It is estimated that there are about 30,000 acres of such lands. Sheep and goat raising is a growing industry, yielding profitably of itself and assisting materially in the clearing of the thick underbrush. Two thousand acres of the county is reserved for military use. The uncut timber and mountainous area occupies about 75,000 acres, containing three billion feet of timber. The uplands are generally of a rich clay loam and sandy or gravelly loam adapted to orchards and farms, with some sandy beaver-dam land in the valleys, suitable for hay and forage.

Prices of Land: The prices asked per acre for unimproved bottom and brush land run from \$25.00 to \$50.00 and for second bench logged-off land from \$5.00 to \$20.00, while improved lands would cost the initial price plus what it costs to improve. The greatest cost in the improvement comes from clearing, which can be done with an expenditure of from \$75.00 to \$150.00 per acre.

Climate: The rainfall varies from 40 to 60 inches; that for 1912 being

about 52 inches average for the county. The number of clear and partly clear days was about equal to the number of rainy and cloudy ones. In winter there is very little freezing weather, while the summer temperature seldom exceeds 80 degrees.

Resources and Industries: The chief industries, in their order, are lumbering, fishing, dairying, and farming. Several hundred men are always engaged in logging and there is still room for considerable extension of this industry. Five salmon canneries are busy during the fishing season and there are several creameries at advantageous points. This is preeminently a dairy country and the future development will undoubtedly be along this line. There is also much water power to be developed.

Water: The county is threaded with innumerable rivers and creeks, many of torrential force, capable of generating considerable horse power. No irrigation is necessary, but for domestic use pure water is everywhere abundant and easily obtainable.

Transportation: The principal movement of crops and manufactures is by freight traffic on the Columbia. Passenger boats also ply daily between the river towns and Astoria, while good graveled roads enter all of the river valleys for a considerable distance. A right of way is purchased for a branch of the Northern Pacific railway entirely through the county via the north bank of the Columbia, while a survey for a state road was ordered by the 1913 legislature.

Wages: The payroll of the logging, milling and fishing industries reaches large proportions and there is always a good demand for common and skilled labor at rather higher prices than elsewhere.

Social: The census bureau reports a population of 866 of school age with 533 in school attendance. Outside the county seat, the communities are so small as to limit the social life of the people to simple neighborhood hospitality. The county has 11 post offices and 21 school districts.

CITIES AND TOWNS.

Cathlamet: County seat. Incorporated. Population 1910, 352. Fronts on the Columbia river and is served principally by two lines of steamboats. The Northern Pacific railway has projected a branch line through the town.

Its chief local industries are a large fish cannery, a saw mill, a creamery, and the large logging camps in the forests nearby. It has a waterworks system, two churches, a grade school, and a newspaper. Its chief social function is an annual regatta at the close of the fishing season.

Skamokawa: (Meaning smoky waters). A lumbering, dairying, and fishing town of between five and six

hundred people, located in the south central part of the county at the entrance to the three valleys of the same name and overlooking the Columbia river. Good church and school facilities are enjoyed and one newspaper is supported.

Other towns and villages are Oneida, Eden, Grays River, Altoona, Brookfield, Rosburg, Waterford, and Deep River.

LEWIS COUNTY.

This important county occupying the central part of southwestern Washington, is 95 miles long and 26 miles wide and contains a total area of 2,369 square miles. It was the first county organized in the state, dating back to July, 1845.

Topography: Its topography is generally of a rolling and hilly nature. Much of the eastern part is taken up by the foot hills of Mount Rainier and the western part by the foot hills of the two coast ranges. Many beautiful and fertile valleys are formed by its several streams. Chief of these are the Cowlitz and its tributaries, draining the eastern portion into the Columbia river, and the Chehalis river draining the western portion into Grays Harbor. The Chehalis valley is from one to four miles in width and supports the largest cities of the county. Sixteen townships in the eastern and four in the central part are included in the Rainier National Forest Reserve.

Population: The census of 1910 gives the county 32,127. In 1900 there were 15,157, showing an increase of 112 per cent. 81.9 per cent were native born white, and 16.3 per cent were foreign born white. The remainder consisted of 499 orientals and 79 negroes. There were 9,630 of school age, with 6,264, or 65%, in attendance. Forty-six per cent of the county population lives in the incorporated towns.

Lands and Soils: The total area of the county is 1,516,160 acres, of which in 1910, 214,872 acres were in 2,261 farms, containing 62,838 acres of improved land, indicating an average sized farm to be 95 acres with 28 acres improved. Being interspersed with numerous rivers and large creeks, it affords many valley bottoms of level land with muck and sandy loam soils. Most of the plateau lands above these bottoms, while considerably undulating, are very fertile, the soil briny, usually of the shot clay and clay loam

varieties. The national forest reserves containing 507,880 acres or approximately one-third of the county's area deprives it also of much of its agricultural land. Of private timber lands, there are approximately 500,000 acres holding nearly eighteen billion feet of merchantable timber, while the reserves have been estimated to contain an equal amount. The State holds 84,035 acres and 1,750 acres are open to homesteaders, leaving in the hands of private owners over 900,000 acres. There are nearly 200,000 acres of logged-off lands most of which are tillable. Some of this is alder bottom, containing rich vegetable loam, but the greater part is on the upland prairies with soil suitable for grains, grasses, forage and fruits. The remainder, although not tillable, will be ultimately valuable for stock raising.

Prices of Land: Good cut over, but otherwise wild, land can be bought almost anywhere for \$10.00 per acre and up. Land clear of stump and level, or reasonably so, sells from \$150.00 to \$250.00 an acre. Near the larger cities, however, it commands higher prices. There are not so many offerings of the highly improved as there are of wild land. This latter is just as good—except for the pioneer work required on it. Some partly improved land can be leased on favorable terms.

Climate: Three zones of the rainy belt occur in this county; the northwestern corner receiving annually over 60 inches; all of the populated part over 40 inches and the reserve portion in the eastern part 60 to 90 inches. The total snowfall for the year at Centralia and Chehalis was 16 inches. The annual mean temperature was 51 degrees. The daily range seldom exceeds 25 degrees. The rains come gently and the little snow that falls dissolves almost immediately. Grass is green the year round.

Transportation: The county is traversed, and most of its principal towns are reached by, the Northern Pacific, Great Northern, Oregon-Washington Railroad & Navigation, Chicago, Milwaukee & St. Paul railways. The Columbia river and salt water is reached via the Cowlitz river from Toledo. Numerous logging and coal roads penetrate the forests and mining regions, and supply the tonnage for long hauls. Puget Sound is quickly reached at Olympia and Tacoma and the Pacific ocean at Willapa Harbor a few miles west. An electric railway connects Centralia with Chehalis, and is to be extended to the rural districts.

Markets: All surplus products of the county quickly reach a ready market. The large canneries of the county preserve the surplus fruit for future sale. Outside of the county, Tacoma, Seattle, Aberdeen, Hoquiam and Portland are the leading markets.

Social Conditions: The evidences of prosperity are everywhere. Modern and ornate architecture, well kept roads, public parks and expensive public buildings; the libraries and churches; plenty of grade and high schools, all indicate a high plane of civic pride and social refinement. A commendable feature, demonstrating the warm spirit of the county, is the annual entertainment known as the Evergreen Valley Feste, given by the city of Chehalis on July 4th to the agricultural communities. Between Centralia and Chehalis are the fair grounds for the Southwest Washington Fair. There are 49 post offices and 80 school districts.

Natural Resources: In addition to the vast timber resources, this county is known to be underlaid with lignite coal, and the presence of petroleum is apparent from seepages. Precious metals, too, are known to exist, but so far have been little prospected. It is from the land and its possibilities for dairying, stock raising, etc., that the wealth of the future will come. Present indications are that this will be increased by converting the falling water into power for manufacturing many exportable goods. In addition to the vast lumber mills which annually cut 300 million feet of lumber and shingles the county has seven producing coal mines and a large milk condensery. It contains one of the largest hop fields in the state, while potatoes and other root crops do exceptionally well.

CITIES AND TOWNS.

Chehalis: (County seat). Altitude 200 feet. Population 1910, 4,507; 1900, 1,775; increase, 154%. Local estimate, 5,600. In the fertile valley formed by the juncture of the Chehalis and Newaukum rivers. It is midway between Portland and Seattle and on the line of the Northern Pacific, Great Northern and Oregon-Washington Railroad & Navigation railways and is so linked by trolley with its neighboring city, Centralia, as to give both the title of "Twin Cities." It is a city of pretty homes and well provided with civic utilities. It has eight churches, a four year high school, two grade schools, two private schools, three banks, with combined deposits of nearly two millions, a public library, waterworks, a paid fire department, telephone and electric lights, two newspapers, paved streets, and cement walks. It derives much of its sustenance from the operations of several adjacent coal mines. It has a furniture factory, door factory, a large milk condensery, several wood working plants, turnings, moulding, etc., a number of lumber and shingle mills, a power plant, two machine shops, a powder works, a brick and tile plant, a bottling works, feed mills, a steam laundry, a creamery, a cigar factory, two marble works, etc., affording an annual payroll of over a half million dollars. Here is also maintained the state training school for boys and girls. Unimproved land within radius of two miles is worth about \$100.00 per acre.

Centralia: Altitude 212 feet. Population 1910, 7,311; 1900, 1,600; increase, 357%. Local estimate, 10,000. The center of a rich dairy and farming section in the valley of the Chehalis and Skookumchuck rivers. The pace set in the construction of civic utilities has been the wonder of its short life. In its vicinity are operated several coal mines affording a large payroll. The city is the market place for vast quantities of the products of mines, farms, and ranges. In transportation facilities it is not excelled, 44 passenger trains leaving each day. Among its prominent industries are six saw mills, a sash and door factory, a glove factory, a porch column factory, besides a number of neighborhood industries. The city shares with Chehalis in the activities from the near-by coal mines and allied enterprises. City has large modern high school buildings, 14 churches, a public library, and other modern public buildings. There are

two daily papers, a semi-weekly and a weekly. It has electric lights and a paid fire department.

Winlock: Incorporated. Population 1910, 1,140; 1900, 655; increase, 74%. Located in the central part of the county on the line of three trunk railways, in the rich valley of the Olequa. Its main industries consist of a large lumber mill, brick and tile factory, and a creamery. Payroll is from \$10,000.00 to \$12,000.00 per month. Town supports a weekly paper, a high school, a grade school, six churches, electric lights, a good water system, cement sidewalks and volunteer fire department.

Pe Ell: Incorporated. Population 1910, 838. Local estimate, 1,000. Principal town on the Willapa Harbor branch of the Northern Pacific railway. It is a saw mill and farming town with much good land obtainable at low prices. Surrounding country is good for dairying. It has four churches, a high school and weekly newspaper.

Vader: (Formerly Little Falls). Population 1910, 631. Local estimate, 800. On the main line of the three principal railways close to the county line. It is the center of a large farming region of the Cowlitz valley. It has a lumber mill, a sash and door factory, and a tile factory. Considerable good clay is in vicinity. Good schools and churches are maintained; also a newspaper.

Mendota: Altitude 275 feet. Population (local estimate) 400. Served by the Centralia Eastern railroad. Coal mining is the main industry, 300,000 tons being shipped yearly. Annual payroll approximately \$100,000.00.

Town is owned by the mining company.

Napavine: Altitude 465 feet. Population (local estimate) 280. Served by the Northern Pacific, Oregon-Washington Railroad & Navigation, and Great Northern railways. The principal industries are lumbering and farming. There are four churches, a high school, and one grade school. Electric lights are being installed.

Morton: Altitude 997 feet. Population (local estimate) 400. Timber, agricultural and coal lands are near. It is served by the Chicago, Milwaukee & St. Paul railway. The principal industry is lumbering. Town has one church, a two year high school, water system, electric lights, a city park of ten acres, and a weekly newspaper.

Mineral: Altitude, 1,500 feet. Population (local estimate) 350. Surrounded by large body of timbered land which will develop into grazing country. Served by the Chicago, Milwaukee & St. Paul railway. Lumber and shingle manufacturing are the principal industries. Town has two churches, a high school, telephone and telegraph service.

Mossyrock: Altitude 415 feet. A good dairying section served by three automobile stages from Chehalis. Land is worth from \$35.00 to \$175.00 an acre. One church and good school facilities are provided.

Silver Creek: Altitude 700 feet. A dairying and general farming center. Improved lands are worth from \$75.00 to \$100.00 per acre.

Other important trading centers are Doty, Lewis, Ceres, Curtis, Riffe, Toledo, McCormick, Littell, Adna, Dryad, Kopiah, Vance and Mayfield.

COWLITZ COUNTY.

This county derives its name from the Cowlitz Indians, the original inhabitants of that locality. It lies in the southwest part of the state and is separated from the state of Oregon by the Columbia river. It is about midway in the valley between the Cascades on the east and the lower coast range on the west. The general slope is southwest toward the Columbia river into which it is drained chiefly through the Cowlitz and its tributaries. This latter is one of the largest rivers in the state and is navigable for a total distance of 50 miles. The Kalama river carries the drain-

age of the southeast. The eastern part of the county is occupied by the foot hills of Mt. St. Helens, while the remainder is composed mainly of rolling and valley agricultural lands. About 70% of the county is rolling, 20% level and 10% mountainous.

Population: According to the census of 1910 the population was 12,561. The subsequent growth has been rapid and the local estimate is now 15,000. Americans predominate, with Germans and Finlanders following.

Land: The county has a total area of 737,920 acres, of which the Columbia Forest Reserve occupies 60,800

acres. The unreserved government lands, designated as "timbered and agricultural" amount to 5,700 acres and the state school and granted lands aggregate 75,190 acres. There are left in the hands of private owners nearly 600,000 acres. It is estimated that 80% of the land is tillable and the balance well suited to grazing. The level country referred to above is all bottom land.

Soil: The soil in the bottom lands is a sandy loam and the hill soil is a black loam and shot clay. Fruits, berries, vegetables and grain grow readily and reach a high degree of perfection.

Prices of Land: There is a great deal of land, both unimproved and improved, that may be purchased, the unimproved would cost \$10.00 and up per acre, with estimated cost for putting under cultivation, \$60.00 and up. Land thoroughly improved means cleared and under the plow. Twenty acres of the best land is considered sufficient for an ordinary family.

Resources and Industries: There are still nearly 300,000 acres of thickly growing timber in the county. This and the rich farm lands constitute the main resources. Lumbering is the principal industry, with dairying and fishing gradually increasing in importance. Fishing is chiefly for smelt and there are millions of these little fish caught in the Cowlitz river every year. Horticulture is also profitable. Fruit, grain, berries and vegetables of all kinds constitute the main crops.

Transportation and Markets: The Oregon-Washington, the Northern Pacific and the Great Northern railroads and the Pacific highway, a primary state road, traverse the county from north to south. The Columbia flows along the southwestern border and the Lewis river is navigable for a distance of 45 miles. Daily steamboats connect all river points with Portland and Astoria. County roads are numerous and kept in first class condition. The principal markets are Portland, Seattle and Tacoma, where everything produced can be readily disposed of at fair prices.

Wages: The recognized wages paid throughout the county for milking and general farm work are \$35.00 per month with board and \$2.50 per day without board. In logging camps, saw mills and other lines of endeavor the prevailing wages, not including board are, for unskilled, \$2.50 per day, for skilled, \$4.00 to \$8.00 per day.

Social Conditions: The social conditions in this county are good. Churches of many denominations, district, grade and high schools are to be found in all of the settled communities, which are also served with telegraph and telephone and satisfactory mail delivery. There are altogether 20 postoffices, 64 school districts and 8 high schools.

CITIES, TOWNS AND VILLAGES.

The municipal corporations and village settlements are: Olequa, Castle-rock, Tillikum, Kelso, Metcalf, Carrollton, Kalama, Hermione, Martins Bluffs and Woodland, along the railway lines. Oak Point, Stella, Eufaula and Catlin are off the railroads, but contiguous to water transportation and easily reached by good roads, while Ariel and Cougar are on the north fork of the Lewis river. Other centers are Ostrander and Lexington.

Castlerock: Population 1910 (census report), 998. Local estimate, 1,100. Situated on the Cowlitz river and on the main line of the three transcontinental railways that traverse the county. It is called the gateway to Mount St. Helens and Silver and Spirit lakes. The sustaining industries are lumbering and farming. Shingle manufacturing runs to about 150,000 per day. A box factory is being constructed and a creamery of large capacity is running. A vast area of standing timber is directly tributary and the logged-off lands are fast becoming of great agricultural importance. Four churches, an \$18,000.00 school building, public library and two newspapers contribute to the spiritual and mental welfare. It also has electric lights, a volunteer fire department and two telephone systems.

Kalama: County seat. Population 1910, 816. Local estimate, 1,200. It is situated near the head of deep water navigation on the Columbia river and the Northern Pacific, Oregon-Washington Railroad & Navigation Co. and Great Northern railways. Steamers run to Portland and connections are made with Astoria. It has a cold storage, ice plant, shingle mill and two large saw mills. Two state fish hatcheries are also here. Four churches, a four year high school, telegraph and telephone service, and two newspapers are maintained. City has electric lights, good water supply, and volunteer fire department.

Kelso: Altitude 30 feet. Population (U. S. census) 2,039; mostly American.

Five thousand acres of garden land lie in the immediate vicinity, while a little more remote is an immense body of magnificent timber. This city has the world-wide distinction of having originated the famous ocean-going, cigar shaped, log raft. Four saw mills and two shingle plants are located here. Fruit growing, dairying and general farming are carried on with marked success. Over 2,000,000 pounds of smelt are shipped annually. There are six churches, a high school and four grade schools, telephone, a city park, newspaper, electric lights, and good water system. Railroads are Great Northern, Northern Pacific and Oregon-Washington Railroad & Navigation. Steamers run to Portland and connections are made by ferry to Astoria.

Woodland: Population 384 (U. S.

census). Local estimate, 600. Situated in the southwestern part of the county on the Lewis river and on three transcontinental lines, with steamboat transportation to Astoria. It is surrounded by a good farming and dairying country. The principal industries consist of several saw mills, seven logging camps, a shingle mill, a creamery and cheese factory. It has city water works, electric lights, volunteer fire department, two churches, a combined grade and high school, two telephone lines and a newspaper. The Lewis River Valley Fair is held here in the fall.

Ariel: Altitude 800 feet. A lumber town located on the north fork of the Lewis river. Population is estimated to be 500. Transportation is by steamer.

CLARKE COUNTY.

This county, named for the great explorer, is one of the oldest and most highly improved communities in the entire state. It is bounded on the west and south side by the Columbia river, while the north fork of the Lewis winds along its northern edge, the southern fork draining the center of the county. Other important rivers are the Salmon and Washougal emptying into the Columbia. All these, with many tributary creeks give the county especially good drainage and produce a horse power which has never been estimated, but which will prove to be very great. Only a small part in the northeastern corner is mountainous and the remainder consists chiefly of gently rolling territory. There are also smaller portions of bottom land.

Population: 1910 census gives 26,115; 1900, 13,419; almost 95% increase. Growth for past three years has been even greater proportionally. Citizenship is largely American, with Scandinavian and Germans following in order.

Lands: The total area is about 405,760 acres, out of which the state holds about 2,700 and the United States 1,600. At Vancouver there is also a government military post known as Vancouver Barracks, containing about 600 acres and with 1,465 men. About 75% of the total area of the county is tillable, but not more than one-fifth of this tillable land has been improved. The untillable would be suitable for

grazing and the development of water power. Upwards of 200,000 acres has been logged-off or burnt over.

Soil: Excepting the bottom lands, soil is of a clayey or gravelly nature. The gravelly lands are best adapted for small fruits, berries, etc., bottom lands for hay and gardening, while the clay soil is very deep and good for all kinds of farming. No irrigation is needed and the climate is well suited for fruit raising. Along the Columbia and Lewis rivers is a deep sandy loam admirably suited for and adapted to stock raising and dairying.

Prices of Land: Unimproved land may be had in large quantities at prices varying from \$15.00 to \$150.00 an acre with the cost for putting it under cultivation ranging from \$75.00 to \$150.00 per acre. Improved land, i. e., land cleared, fenced and ready for the plow, may be had for \$50.00 to \$500.00 an acre. It is estimated that from 10 to 40 acres will be sufficient for an ordinary family of five persons. Some may be leased at terms satisfactory to the tenant.

Resources and Industries: Besides the agricultural lands and water power as noted above there are about 30,000 acres of timber lands and some undeveloped coal fields. Opportunities exist for Columbia river fishing. The principal industries are lumbering, dairying, diversified farming, and fruit growing. This county has more plum and prune trees than all the rest of the state combined, there being 612,-

187 trees January 1st, 1913. In dairying it is one of the five leading counties. This is an excellent county for those desiring small homes, and the country facing the Columbia river on the south is unusually picturesque and attractive. About 400 acres in the county are devoted to the raising of English walnuts, for which the deep soil is well adapted.

Transportation and Markets: The Northern Pacific, Great Northern, Oregon-Washington, and the Spokane, Portland & Seattle railroads all traverse the county, while the Southern Pacific trains run over the Oregon-Washington Railroad & Navigation company's tracks, and the navigable Columbia river on the south and west furnishes daily water transportation to all river points. The Pacific Highway and state road No. 8 cross the county from north to south and from west to east respectively, while good county roads are being constantly improved and extended. With the cities of Vancouver in the county, Portland just across the river, and Tacoma and Seattle reached in five or six hours, no trouble is experienced in disposing of practically all products.

Wages: Wages paid for farm labor, including board, are \$4.00 a month; without board, from \$2.00 to \$2.50 per day. Work may also be found in the logging camps, paper mills, rock quarries, brick and tile factories, building, railroading, etc. Wages for unskilled amount to \$2.00 per day, while for skilled labor from \$3.00 to \$7.00 per day is the prevailing wage.

Social Conditions: Being an old established community, Clarke county is blessed with all the social conveniences and comforts that can be expected anywhere. Good public schools, both grade and high are found in all localities. Churches of all denominations are maintained, while telegraph and telephone wires reach nearly every settled portion. Agricultural fairs are held in several of the larger communities each year for the display of local products. There are 18 post offices and 83 school districts.

CITIES AND TOWNS.

Vancouver: County seat. Altitude 73 feet. Population 1910 census, 9,300. Local estimate, 12,000. This is the oldest town in the state, having been settled by the Hudson Bay Company in 1826. It is backed by all the agricultural and timber resources of

Clarke county, while many manufacturing industries are carried on within the city itself. Chief plants are three saw mills, three planing mills, a box factory, tile plant, two iron foundries, two brick yards, an ice and cold storage plant, flour mill, two prune packing plants, a brewery and bottling works, a granite and marble works, and a number of minor establishments. Being a railroad terminal about 400 men are employed in the car shops. In addition there are 1,460 men at the garrison with a monthly pay roll of about \$40,000.00. City has about 12 miles of paved streets, electric street cars, a paid fire department and both gas and electric lights; 11 churches, a high school, six grade buildings, and one private academy; also a public library, one daily and one weekly paper and a five acre city park. The state schools for the deaf and for the blind are here. City street and sewer improvements for 1913 cost \$140,000.00. For transportation facilities read county paragraph on that subject. An electric line gives half hour service to Portland. A ferry is used at present for crossing the Columbia river to Portland, but work is soon to begin on a \$1,600,000.00 bridge. A county fair is held here each September.

Camas: Altitude approximately 58 feet. Population (census 1910) 1,125; local estimate 2,000. Outlying districts are highly adapted to general farming, dairying and fruit raising. It has a paper mill whose monthly payroll for 800 men averages \$40,000.00, a saw mill, creamery and stone quarries. Fishing, lumbering and general farming are important. Plenty of electric power is available. Estimated yearly payroll for vicinity is \$960,000.00. Plenty of work may be found at \$2.00 a day for unskilled up to \$8.00 a day for skilled labor. A paper box factory employs women and girls at \$1.25 per day. There are also six churches, a high school and weekly newspaper.

Washougal: Altitude nearly tide level. Population (census 1910) 456; local estimate, 500. It has connections with all transcontinental lines via the Spokane, Portland & Seattle railroad. Several lines of steamboats plying the Columbia also make daily stops here. Thousands of acres of fertile lands are tributary. General farming, dairying and prune culture are carried on extensively and profitably. It has one woolen mill, two machine shops, and a boat building and boat storage yard.

There are five churches, a high school and a weekly paper.

Yacolt: Altitude 727 feet. Population (census 1910) 435; local estimate, 585. The terminus of the Yacolt branch of the Northern Pacific railroad and located on a small prairie in close proximity to the foot hills. Surrounding land, adaptable to fruit and vegetables, is worth from \$25.00 to \$125.00 per acre. The Twin Falls Lumber Company operates a large plant here. Opportunities for work in mills and at logging camps are plentiful. The town has a high school, three churches, and one newspaper.

Battle Ground: Altitude 290 feet. A village located on the Yacolt branch of the Northern Pacific railway, and surrounded by dairy and fruit lands. It has four saw mills, and a brick and tile factory.

Ridgefield: Altitude 80 feet. Estimated population, 500. An important

and growing farming center located on the main line of four transcontinental railroads. It has a saw mill and shingle mill, five churches, a high school and newspaper. A horse and cattle show is held in June.

La Center: Altitude 80 feet. Estimated population, 400. Located on the east fork of the Lewis river at the head of navigation in the heart of a beautiful farming locality 25 miles from Portland. Close by is a fruit cannery and 12 saw mills. Church and school facilities are adequate.

Orchards: Altitude 200 feet. A pretty town located in the midst of a fruit section devoted to the raising of prunes, apples, cherries, pears and berries. Its people maintain a church and high school. An electric line connects with Vancouver.

Other important centers are Etna, Amboy, Brush Prairie and Heisson.

SKAMANIA COUNTY.

This county is situated in the heart of the Cascade Mountains. It slopes from the snow covered summits of Mt. St. Helens and Mt. Adams southward to the Columbia river, which bounds it for 40 miles on the south. Springs from pure snow fields lengthen into numerous streams that intersect the plateau heights and flow through an immense forest area to join the fabled "Oregon." Before completing their courses, however, they have formed river valleys rich with the decaying debris carried by their waters. In these valleys are to be found most of the people of the county, for all the land held in private ownership is within the nine townships bordering on the Columbia river.

Population: The census of 1910 gives the county 2,887, that of 1900, 1,699, showing an increase for the decade of 71%. A steady growth is continuing. 77% are native born. Of the foreign born, Norwegians, Turks, Germans, Swedes and Canadians are in the lead. The recent building of the Spokane, Portland & Seattle railway has had much influence upon the growth of this section.

Lands: Of the entire area of 1,078,400 acres, the government has taken 868,560 acres into the Columbia and Rainier National Timber Reserve; 36,940 acres are owned by the state and 5,500 acres were unreserved and unappropriated government lands July 1,

1913. In 1910, 25,631 acres were in 232 farm ownerships containing 4,477 acres of improved area. Much of the reserve, however, contains choice agricultural land, which can be acquired under rigid restrictions. Of the open land a large area, estimated at 40,000 acres, has been logged-off, revealing valuable rolling uplands admirably drained and suitable for most agricultural purposes, especially fruit raising. Much of this was formerly held by large timber companies, but of late it has been subdivided and is now offered for sale to the newcomers.

Prices of Land: Although this county is considered within the favored fruit land area of the state, it is somewhat newer in settlement and prices have not reached the maximum of other counties. A very limited area nearest the river landings or railway stations is most valuable. Wild or unimproved land, which is for the most part logged-off, sells at from \$5.00 to \$150.00 per acre, and will cost from \$50.00 to \$150.00 to prepare for cultivation, but it is always worth the full cost of development and more, since its annual earning capacity is from \$50.00 to \$100.00 per acre. Land under cultivation set to fruit, with good buildings, brings much higher prices. There are some chances for leasing on favorable terms.

Soil and Climate: Several varieties of soil are here, "shading from the

volcanic ash of the White Salmon and Little Salmon valleys, to the light and heavy loams and clay subsoils predominating in the central and western sections of the county, and the red shot and mixed soils on all the higher levels." In the eastern part fruit growing has proved especially suitable. In the valleys is also found a black loam, deep and strong and most desired for vegetable growth. The annual precipitation is unusually large in most parts and nearly everywhere sufficient to preclude necessity of irrigation, although in a few places its practice for a short time during the dry season helps to produce even better results. There are numerous health resorts with mineral waters containing curative properties.

Resources: The reserve being open for mineral entry, considerable prospecting is being done and many good paying mines of copper and lead have been opened, but are awaiting better transportation facilities. The chief resources at present consist of the many billion feet of uncut timber, the fruitful lands released from the cutting of it, and the untold quantities of salmon in the Columbia river. Fruit and berry growing, dairying and poultry raising, as well as lumbering and fishing are all important industries contributing to the wealth of this comparatively new section.

Transportation and Markets. The facilities for moving crops and for travel are ideal. Every waterfront town has its landing at which stop four times a day boats plying between Portland and The Dalles. The Spokane, Portland & Seattle railway hugs the river bank across the county and provides every station with four trains each day. The wagon roads are reasonably good, and where they reach through the forests to the interior resorts are wonderfully picturesque. These facilities provide good access to

the local markets of Portland, The Dalles, Seattle and Tacoma.

Social: Health resorts at the river towns and at Spirit Lake and elsewhere attract many outside people who with those permanently engaged in horticultural pursuits form a happy nucleus for much social enjoyment. Good schools and churches are provided and a county fair is annually held at Stevenson. There are 28 school districts, 12 post offices and 8 high schools.

CITIES AND TOWNS.

Stevenson: County seat. Population 1910, 337. Present local estimate, 400. It is the only incorporated town in the county and the metropolis of the district. It is picturesquely located in the heart of the Cascades on the Columbia river and the Spokane, Portland & Seattle railroad. It has several saw mills and planing mills; also a water works system, good streets, electric lights and public buildings, including a high school, a grade school, two churches and several hotels—one a health resort of medicinal waters—a bank, a newspaper, steam laundry, etc.

Carson: Estimated population, 250. A beautiful river town on the Spokane, Portland & Seattle railroad in the Carson valley, opposite Hood River. The town and valley is famous for its pleasant climate and well equipped health resorts. Lumber is the chief industry, with gardening, fruit raising and stock raising following. It has one church and a good school.

Underwood: Is an attractive home town overlooking the Columbia river and the Hood River valley. Fruit growing is the chief industry. It has good church facilities and a four year high school.

Other towns and trading centers are Mt. Pleasant, Butler, Cape Horn, Cooks, Lange and Chenoweth.

YAKIMA AND WENATCHEE VALLEYS.

KLICKITAT COUNTY.

Klickitat county consists of a long rather narrow strip of country lying in the south central part of the state between the southern boundary of Yakima county and the Columbia river which separates it from the state of Oregon.

Topography: It extends westward into the edge of the Cascade range and partakes here of their magnificent scenery, while eastward it stretches out over the foot-hills and rolling plains to Benton county, and the brown sage brush hills of the fam-

ous "Horse Heaven." Altitude varies considerably, the highest parts being in the Cascade foot hills on the west, the Columbia mountains on the south in ranges 14, 15, 16 and 17, and the Simcoe mountains on the north where an elevation of 5,000 feet is reached. The lowest places are near the Columbia river. Many agricultural plateaus and valleys are found, chief of which are the White Salmon valley in the west and the valley of the Klickitat near the center of the county. This latter is approximately 30 miles long by 8 miles wide, in ranges 14, 15, 16 and 17, and represents the fertile country around Goldendale. 50% of the county is rolling, 20% level and the remainder mountainous.

Population: U. S. census for 1910 gives 10,180. In 1900 there were 6,407. There are many Germans, Scandinavians, Swiss, Danes and English in addition to the American born. Growth of past three years is probably normal.

Lands: The total area of the county comprises 1,168,000 acres, of which 32,000 are in the Columbia Forest Reserve, and 65,280 are in the Yakima Indian reservation, 44,284 are unappropriated timber, agricultural and grazing lands open to homesteaders and 64,122 acres are state lands. The balance of over 900,000 acres are in private ownership. About one-half of this is in farms, but only about one-fifth is improved, although approximately 400,000 acres of the county is tillable, and the remainder is suitable for grazing.

Soil and Climate: The soil varies from the alluvial along the rivers and creek bottoms to red loam and volcanic ash soil on the foot hills and higher plains. Volcanic ash soil prevails in the eastern two-thirds, there being some clay loam or black loam in the central part, with red clay subsoil. Rainfall runs from 10 to 12 inches in the extreme east to as high as 30 or 35 inches in the White Salmon valley. Dry farming is usually practiced, the moisture being sufficient to produce excellent crops.

Prices of Land: Unimproved land, with considerable on the market but with no panicky desire to sell, can be had at prices ranging from \$15.00 to \$100.00 per acre, although the higher price is unusual for most parts of the county. Improved grain land usually runs from \$15.00 to \$75.00 per acre, while orchard lands sometimes run up into the hundreds.

The highest priced fruit lands are around White Salmon, where fruit growing is carried on with success equal to the Hood River country. Clearing of rough lands will cost between \$15.00 and \$75.00 an acre, the thicker timbered portions requiring the larger outlay. Some land may be leased on shares for one-third the crop. Around Goldendale from 20 to 80 acres of land is sufficient for a family. In the eastern part from 160 to 320 acres would be needed. In the White Salmon valley 10 acres will sometimes suffice.

Resources and Industries: Agricultural and horticultural pursuits form the main industries. Some salmon are fished from the Columbia river and some timber is cut on the northern and western slopes. This latter resource, however, is very little developed and the stumpage is usually quite light. Pine and fir predominate. The main crops are wheat, alfalfa, and fruit. Considerable live stock is still raised, including a great many sheep. About a million bushels of wheat are raised annually, also some oats, rye and barley. Commercial apple growing is comparatively a new industry, but its success has been demonstrated in the White Salmon valley west of the Klickitat river, along the Columbia river, and on the sunny slopes of the Simcoe foot hills. Other fruit and vegetables do well. Dairying is destined to become important. A stone quarry exists near Wright on the branch line of the Spokane, Portland & Seattle railroad.

Water: Plenty of pure water for domestic purposes may be found in springs, creeks and wells. Depth of wells varies in different localities. Much water power exists in the Big Klickitat and probably about 60,000 H. P. can be developed. From this river it is proposed to get the water for irrigating the "Horse Heaven" country. Very little irrigation is practiced at present.

Transportation: The Columbia river is navigable all along the southern border of the county and daily steamboat service is enjoyed by all points on the river between the Pacific ocean and the head of navigation. The Spokane, Portland & Seattle railroad, having transcontinental connections, parallels the river on the Klickitat county side and the Oregon-Washington railway runs along the Oregon side directly opposite. A branch line of the Spokane, Portland & Seattle

extends to Goldendale. State road No. 8, a secondary highway, runs through the entire county and on to Mabton in Yakima county. The county roads are especially good and reach every trading point within the county. In many places automobiles are run the entire year.

Markets: A ready market with fair prices is always obtainable. The wheat is sold in warehouse and shipped either to the east or via Seattle and Tacoma to European and other foreign markets. The fruit is sold almost entirely in the east. The hay, lumber, dairy products, etc., are at present usually needed for local consumption.

Wages. Farm labor, including board, receives from \$1.00 to \$1.50 per day or \$25.00 to \$40.00 per month. Without board wages run from \$2.50 to \$3.00 per day. Plenty of work at general framing, land clearing, etc., may be obtained during almost the entire year. It slacks up some during December, January and February. Other work may be had in the lumbering industry or in road building and repairing. Highly skilled labor demands in some lines as high as \$6.00 per day.

Social Conditions: Churches, schools, telegraph and telephone lines, rural free delivery of mail, etc., serve almost every resident of the county. In the larger centers are to be found the accredited high schools, libraries, theaters and fraternal organizations. There are 85 school districts and 10 high schools.

CITIES, TOWNS AND VILLAGES.

According to the latest report of the post office department there are thirty-two post offices in Klickitat county. Many of these settlements are stations along the north bank of the Columbia river on the Spokane, Portland & Seattle railway. The following are the chief ones:

Goldendale: County seat. Altitude 1,650 feet. Population 1910, 1,203. Local estimate 1,500. Located on the Little Klickitat river and is the terminus of the Goldendale branch of the Spokane, Portland & Seattle railway. Daily stages connect with Maryhill, 10 miles to the south on the line of the Spokane, Portland & Seattle railroad and the Columbia river. Just north is one of the largest yellow pine timber belts in the state. City is the center of the Klickitat

valley where general farming is practiced and nearly every crop common to the temperate zone is possible. Very picturesque is the surrounding country, showing three of the most notable mountains in the west, viz., Mt. Hood, Mt. Adams, and Mt. St. Helens. Rainfall is about 20 inches annually, while the thermometer seldom drops to zero. City has two planing mills, two flour mills, meat packing plant, ice plant, two machine shops, brick yard and creamery. Six or eight saw mills in the vicinity have a capacity of from 15,000 to 40,000 feet per day. There are six church denominations, a high school, two grade schools, public library, and three newspapers, also city park, gravity water, electric lights and telephone.

White Salmon: Altitude 200 to 1,800 feet. Population 1910, 682. Local estimate 800. A growing town located on the Spokane, Portland & Seattle railroad and the Columbia river at the mouth of the White Salmon river. Fruit has been found particularly adaptable for this valley, the soil, climate, etc., being like the Hood River country just across the Columbia. Undeveloped land costs from \$50.00 to \$350.00 per acre. Much timber and water power are available. City has two banks, four churches, a weekly newspaper, high school, and one private school. Rainfall is about 35 inches. No irrigation is practiced.

Bickleton: Altitude 3,015 feet. Estimated population 200. Some Danes besides Americans. A farming center in the northeastern part of the county in a mountainous or hilly country. Wheat and stock raising is carried on extensively. The only transportation is by good wagon roads to Mabton and Roosevelt. Lands in the vicinity cost from \$20.00 to \$30.00 an acre. Town has two churches, one grade and one high school and a weekly newspaper.

Lyle: Altitude 150 feet. Estimated population 175. An agricultural center near the Columbia river and at the junction of the Spokane, Portland & Seattle railway and its branch to Goldendale. Grain, hay, sheep and cattle are produced in considerable quantities, while many fruit trees have been recently planted. It has a church, high school, and newspaper, also telephone connections.

Guler: Altitude 1,940 feet. A lumbering, dairying and stock raising

center located on the Klickitat river in the northwestern part of the county. Fruit, grain and vegetables also do well.

Cliffs: One of the Spokane, Portland & Seattle railroad division points and a trading center for a consider-

able territory. A good nut producing country is near by.

Other important towns and trading centers are Roosevelt, Laurel, Wrights, Centerville, Glenwood, Bristol, Columbus, Klickitat, Fallbridge, Lucas and Bingen.

BENTON COUNTY.

Benton county was organized in 1905 out of the eastern portions of Yakima and Klickitat counties which form its western boundary. It includes the lower part of the Yakima valley, which at present supports the larger part of the population.

Topography: In the north central part are low ranges of hills known as the Rattlesnake mountains, while the southern portion is occupied by the famous "Horse Heaven" plateau. The Columbia river bounds it on three sides and supplies water for a number of pumping propositions. The surface is generally rolling and covered with bunch grass. About 60 per cent. is of plateau formation.

Population: 1910 census 7,937. Local estimates indicate considerable increase during the past three years. Foreign element consists chiefly of Canadians, English, Germans and Scandinavians.

Lands: The total land area is 1,069,440 acres out of which there are 97,761 acres of unappropriated and unreserved government lands, part of which is described as irrigated, arid and mountainous, and part as grazing, some timber, prairie and farming. The state school and granted lands (September 30, 1912), amounted to 74,886 acres. The remainder of the land area would be in the hands of private owners. Approximately 500,000 acres altogether, are tillable, while that considered non-tillable is suitable for grazing.

Dry farming is practiced in the uplands and irrigation is found advantageous in the valleys. The unimproved portions are mostly covered with sagebrush or bunch grass. Nearly half of the county could be placed under cultivation and with sufficient water would yield well. Where irrigation is not at present practiced, dry farming methods are resorted to.

Soil and Climate: The soil is all volcanic ash with some sand mixed. In many places it is of unusual depth. Annual precipitation is about 8 inches. The mean winter temperature is about

45° and the mean summer temperature about 70°.

Prices of Land: Unimproved irrigable land can be purchased for \$10.00 an acre. Raw land irrigable from present projects costs from \$100.00 to \$200.00. The cost for putting under cultivation varies. Usually about \$25.00 an acre would be sufficient for clearing and leveling. Improved land, uplands not irrigable, may be had for from \$15.00 to \$25.00 an acre. Irrigated alfalfa lands run from \$150.00 to \$250.00. Orchards in bearing will bring as high as \$500.00 an acre. From ten to twenty acres of irrigated land is sufficient for a family. Many opportunities for leasing are open.

Resources and Industries: Industries are strictly along the lines of agricultural, horticultural, and stock raising pursuits. Many cattle come from other parts to pasture in the warm valleys during the winter. The strawberries of Kennewick are the earliest on the market, preceding the famous Hood River berry by from two to four weeks. Apples, pears, peaches, apricots, berries of all kinds, alfalfa, timothy and clover are easily produced in large quantities on the irrigated lands, while the uplands are devoted chiefly to wheat raising.

Water: An abundant supply for irrigation is obtained from the Yakima and Columbia rivers, their numerous tributary branches and from wells. A water right under the Sunnyside ditch costs \$52 per acre. The supply for domestic uses is secured from the Columbia river and wells. In the hills farmers must depend on wells alone.

Water Power: Abundance of water power exists, about 6,000 horse-power in the Yakima river and 300,000 in the Columbia at Priest Rapids, just over the northwest corner of the county.

Transportation and Markets: Four great railway systems with transcontinental outlets traverse the county, viz.: the Chicago, Milwaukee & St. Paul, along the northern border, the Northern Pacific and Oregon & Wash-

ington through the central portion, and the Spokane, Portland & Seattle along the north bank of the Columbia river the entire width of the county. The Columbia river is navigable for about 140 miles and regular steamboat service exists between certain points. The "Inland Empire" highway, a state constructed primary road, crosses from west to east, through the center of the county, while county roads extending to every settled portion of the county, are usually in good condition.

The markets for products consist of Puget Sound cities, Alaska, the Orient, Spokane, Butte, Helena, British Columbia and even New York City.

Wages: Plenty of work can be found during the seasons of seed time and harvest. In the wheat districts many men are employed in harvesting the crop. In the fruit districts, picking and packing furnishes labor for a small army of industrious people. The wages paid for this kind of labor amount to \$30.00 a month and board. Without board \$2.00 to \$2.50 a day is the regular scale.

Social Conditions: Churches, libraries, schools and fraternities are found in the cities of this county. Good telegraph, telephone and mail service are also usually enjoyed. Rural free delivery extends to the further parts.

There are 21 post offices, 35 school districts and 7 high schools.

CITIES, TOWNS AND VILLAGES.

Many small cities are located on the four railroad lines or near the Columbia and Yakima rivers. Most of these are centers for securing supplies or shipping products. Their location can be seen from the map contained herein. The more important municipalities are as follows:

Prosser: County seat. Altitude 666 feet. Population 1910, 1,298. Located on the Northern Pacific and Oregon-Washington Railroad & Navigation railroads, in the western part of the county on the Yakima river. Many acres of irrigated lands are tributary. The Northern Pacific orchard, one of the largest in the country, is located near. It has an ice plant, flour mill, power plant, creamery, electric lights, city water, new high school, several

grade schools, seven churches, two banks, and two newspapers. Approximately 2,000 H. P. is being utilized from the Yakima river.

Kennewick: Altitude 300 feet. Population 1910 census, 1,219. Local estimate 2,000. Located on south side of the Columbia river near mouth of Snake river. It is served by the Great Northern; Spokane, Portland & Seattle and Oregon-Washington Railroad & Navigation railroads, also by river transportation on the Columbia and Snake rivers. It has a flour mill, Pacific Power and Light plant, box factory, broom factory, cold storage and bottling works, grape juice factory, sheet metal works, and planing mill; also seven churches, a high school, two grade schools, one private school, public library, telephone, and two newspapers. The Columbia river valley grape carnival is held here.

White Bluffs: Altitude 400 feet. Estimated population 500. The center of an irrigated section on the Columbia river. Peaches and grapes and alfalfa do especially well. The surrounding country is excellent for fruit, dairying and stock raising. On the highlands back, wheat is raised. It has electric lights and good water supply, high and grade school building, one bank, two churches, and one weekly newspaper. Transportation is by Chicago, Milwaukee & St. Paul railroad, stage and Columbia river boats down to Kennewick and Pasco.

Richland: Altitude 309. Estimated population 300. Lies just above the mouth of the Yakima river on the west bank of the Columbia river. Fruit, alfalfa, dairying and chicken raising, are profitable industries. Land is watered from a gravity ditch out of the Yakima river. There are three churches, a high school and two grade schools, city park and newspaper. Transportation is by automobile.

Kiona: A new town on the Northern Pacific and Oregon-Washington Railroad & Navigation railroads near the bend of the Yakima river. Four miles away are wheat fields. Irrigation is expected in the near future.

Other important trading centers are Carley, Paterson, Badger and Mottinger.

YAKIMA COUNTY.

This is the second county in size in the state, its total area being 5,059 square miles. It takes its name from the Yakima river which with its trib-

utaries drains the county and supplies the water with which this wonderful valley is irrigated.

Topography: The western part lies

on the eastern slope of the Cascade mountains. The timbered spurs and foot hills of these occupy a large part of the county. Lower hills covered with sage brush approach from the east, south and north, almost encircling the thousands of acres of rich agricultural land on either side of the Yakima river. Hills from the east and west almost meet at a point about 10 miles south of North Yakima called the Union Gap, leaving just enough space for the Yakima river, the public highway and the railroads, thus dividing the county into two natural divisions. The portion above this gap with North Yakima as its center has experienced the largest amount of development. A number of smaller valleys, equal in fertility, are tributary to this. Chief of these are the Naches, Atanum, Cowiche and Wenas.

Below the gap is the larger area of level land which extends for forty miles east and west and many miles north and south. Through this part flows the Toppenish and Satus rivers, divided by the Simcoe Hills. Here is also the Sunnyside project, the largest in the state and capable of irrigating 100,000 acres of land.

The elevation of the county varies from 12,307 feet, at the summit of Mt. Adams on the southwest boundary line, to 1,067 feet at North Yakima and 735 feet at Sunnyside.

Population: The census of 1910 gives the county 41,709, that of 1900 13,462, showing the remarkable increase of 209 per cent for the decade. This large increase was due to the recent building of big irrigation ditches which made possible the successful cultivation of many acres of fertile land. 5,073 were foreign born whites, including Canadians, Germans, English and Scandinavians.

Lands: The county contains a total area of 3,237,760 acres, of which 554,360 are in national forest reserves, 1,058,840 in the Yakima Indian reservation, 74,000 acres surveyed and 274,500 acres of unsurveyed government lands unappropriated and unreserved. In addition the state holds 129,419 acres. Of the remainder in private ownership, 320,921 acres were in farms of which 176,410 acres were improved. There are a great many acres under completed projects that offer good inducements to those desiring land while several projects are contemplated that will irrigate thousands of acres more. There is also much land above any possible plan for irrigation which can

be utilized for dry-farming and stock raising.

Below the gap, besides the private, state and federal lands, one may purchase pieces of the Yakima Indian reservation which are often placed on the market and sold at auction to the highest bidder. This section offers particular advantages to those desiring to engage in dairying, stock-raising, or general farming. The Wapato project is expected to irrigate 80,000 acres more of this in the near future. On the east side of the Yakima river, below the gap, is the Sunnyside ditch, mentioned above.

Soil: The soil of the county in common with several others of eastern Washington is described as mostly of volcanic ash loam, rich in the elements necessary to vigorous plant life. Aided by irrigation it is well adapted to nearly all kinds of vegetation which grow with wonderful strength and rapidity. It varies in depth in the valley regions from ten to sixty feet. It is a soil easy to till and ideal for irrigation, in that it holds moisture from evaporation to a remarkable degree.

Prices of Land: Prices for raw irrigable land range from \$50.00 to \$250.00 an acre, not including water rights; with water the prices run from \$100.00 to \$300.00. Above the canals, land, with soil just as good, can be had for \$25.00 to \$50.00. Bearing orchard lands range from \$400.00 to \$1,200.00 per acre and often include comfortable homes. Hay lands run from \$125.00 to \$300.00 per acre. Hop lands will fetch about \$400.00 an acre. It should be noted that the highest priced land is closer to the cities. Equally good land further away is purchasable at comparatively low prices. For intense cultivation of garden crops or for orchards and small fruits ten acres will suffice an ordinary family. For alfalfa, dairying, stock, etc., 40 acres will make a nice farm. The ground is easily prepared for cultivation and original perpetual water rights cost \$52.00 per acre under the Sunnyside and \$93.00 under the Tieton. There is a small annual charge for maintenance, 95c per acre under the Sunnyside and \$1.50 under the Tieton. The private projects vary in cost.

Climate: The county lies in three different zones of precipitation. The annual rainfall of the western edge from the summit of the Cascades to the base of the timbered area is greater than elsewhere, and much of this is snow. From here to the center of the

county, it gradually diminishes, while the eastern half of the county is in the dry zone. North Yakima, central in the county, but in the arid zone, recorded for 1912, 7.22 inches of rain, the greatest being in January, 1.82 inches, and November 1.04. Each of the other months had some rain, the least being in September with 0.17 inches. The annual mean temperature was 50.8 degrees above. There were 62 rainy days, 177 clear, 92 partly cloudy and 97 cloudy. Summers are long and uniform and the winters are always short. Violent storms, tornadoes or cyclones are unknown.

Natural Resources: While precious minerals are known to exist in the Cascades, there seems to have been little prospecting done and no development work. Preeminently the county's chief resources are in its wonderful soil and befitting climate for agricultural, floricultural and stock raising pursuits.

Although the greatest reputation, especially above the gap, has been made in the production of fruit and particularly apples and peaches, which are famous the world round, nevertheless the county is well adapted to dairying and stock raising, hogs, etc. Hay, hops, potatoes, melons, wheat and poultry are raised in large quantities. Practically all vegetables do well. Some localities rival California for vineyards and the production of wine for export is a great possibility. Under irrigation, wheat will yield 50 to 60 bushels and oats 80 to 125 bushels per acre, but land, excepting that suitable for dry farming alone, is too valuable for this crop. About 2,000 acres are devoted to hops and yield annually over 20,000 bales. The estimated value of the land and animal products for 1912 exceeded five million dollars and made transportation of over 20,000 carloads.

There are about 2,000,000 apple trees and nearly 600,000 peach trees in the county, representing about 40,000 acres of land. The fruit crop for 1913 was about 4,500 cars.

A recent cruise of the standing timber of the county privately owned shows 418 million feet and it is estimated that the forest reserves contain about six billion feet.

Water: This feature has been variously referred to in other subjects. Besides from streams that empty into the Yakima river, water is obtainable from wells almost anywhere in the valleys. A number of artesian wells

have recently been found and from present indications many more are available. All water is pure and free from mineral or organic objections.

Transportation: The Northern Pacific and the Oregon-Washington Ry. & Navigation Co. traverse the county diagonally through the Yakima river valley. The North Yakima Valley Ry. affords a feeder to these lines from the outlying districts. The wagon roads are exceptionally well kept and heavily used. Seventy miles of the state highway will be in this county. The Sunset, the McClellan and the Inland Empire highways meet at North Yakima.

Wages: In this section with its vast agricultural resources, there is no surplus of population and no idlers. The prosperity of the land enterprises naturally tends to keep wages up to standard. Common labor wages are from \$1.75 to \$2.50 except at harvest time when as much as \$3.00 is paid. Skilled labor commands ordinary union wages.

Markets: The coast cities absorb all the surplus hay, potatoes, vegetables, poultry, dairy and animal products, as well as much of the fruit, but the market for the latter is as wide as transportation cost will permit. Thousands of car loads annually of apples, peaches and other products go to far eastern cities and even to Europe and the orient.

Social Conditions: In planning their cities and towns social needs have been well considered. Beauty spots and play grounds are provided. Artistically designed schools of ample capacity have been built. Many pretty churches are well supported and esthetic development is encouraged. These conditions permeate the surrounding rural districts which are closely connected by mail service and rapid transit facilities. There are 26 post offices, 22 rural routes, 56 school districts and 24 high schools.

CITIES, TOWNS AND VILLAGES.

North Yakima: County seat. Altitude 1,067 feet. Incorporated. Population 1910, 14,082; in 1900, 3,154, an increase of 346.5 per cent. Present estimate, 17,500. Same ratio of growth seems to continue. Its total area is 2,355 acres. It now has a commission form of government. In architecture and engineering the most modern and approved principles have been applied. As a result of this together with its ample provisions for education, religion, comfort and amusement, it has

become a beauty spot and pride of the state. Centrally located in the midst of a rich irrigation section, it has become the county's metropolis. It has over seven miles of paved streets. The residence districts are parked and have cement walks. Its business and public buildings are of brick and stone of truly artistic designs. It has a splendid waterworks and sanitary sewer system and uses both gas and electric light, besides a central heating plant for both business and residence use. It has a paid fire department with automobile trucks; a public library; Y. M. C. A.; federal building; many fraternal buildings; a commodious court house; two large hospitals; a \$125,000 high school and eight brick grade schools; two private schools, 23 churches and a public park. It is served by the Northern Pacific and Oregon-Washington Railway & Navigation railroads and it is the terminal of the Yakima Valley line. It has over 12 miles of electric street railway. There are two daily newspapers, five weeklies and one monthly. It has a number of large industries that employ 2,500 men. Among these are a lumber mill, sash and door factories, cement product plants, vinegar works, broom factory, distillery, flour mill and creameries. Bank clearings for 1912 were \$21,808,020.37. The Washington state agricultural fair is held annually at this city, bringing thousands of visitors. An annual blossom festival is held in the spring.

Toppenish: Incorporated in 1907. Population 1910, 1,598. Local estimate 2,500. This city is on the Yakima Indian reservation and delightfully situated as to topography and climate. It is on the line of the Northern Pacific railway near its junction with the Sunnyside branch and is the trading center for a large district producing large quantities of potatoes, hay, sheep and cattle, and some fruit. The point has been selected as ideal for tree nurseries and the industry is carried on to a large extent. The land here is exceedingly fertile and small farms of about 5 to 10 acres are found sufficient for a family's needs. The city is modern in every way and the business blocks are chiefly of brick and stone. It has more than a mile of paved streets, a paid fire department, municipal waterworks, six churches, a four year high school and two grade schools, a pretty park covering several acres, a telephone exchange, two newspapers, a national bank and two state banks. It makes a

feature of an annual Indian Round Up, a novel wild west show.

Sunnyside: Altitude 735 feet. Incorporated 1902. Population 1910, 1,379. Admirably located in the Yakima valley in the east central part of county, on the Northern Pacific and Oregon-Washington Railroad & Navigation railways. It is the metropolis of the Sunnyside reclamation project. Cattle, sheep, and hog raising and the growing of forage, corn and other food crops are a specialty, while it challenges the world in the quality and yield of all fruits not strictly tropical. It has a large tomato cannery, an ice plant, and creamery, cement walks, electric lights, municipal water plant, nine churches, a high school, public library, two parks, two banks, and two newspapers. All business buildings are of substantial character and surroundings are homelike.

Zillah: Altitude 719 feet. Incorporated. Population (local estimate) 500. Located on Yakima river in midst of rich irrigated district. It is served by the Oregon-Washington Railroad & Navigation Co. and Yakima Valley railways. Fruit, hogs, and dairy products are shipped. Business street is paved. It has a city heating plant, electric light and telephone service, three churches, a high and grade school, and one newspaper.

Mabton: Altitude 733 feet. Incorporated. Population, 1910 census, 666. On the Yakima river at the edge of the Yakima Indian reservation. It is a shipping center of the considerable animal and forage products of the Horse Heaven country, an expansive plateau of sage brush grazing country to the southeast. Surrounding lands are very fertile and irrigated or irrigable. It has municipal wells, electric power and light, five churches, a four year high and a grade school, a city park and a newspaper. A district fair and poultry show is held annually.

Granger: Altitude 650 feet. Population 1910, 453; local estimate, 650. Is in the Sunnyside irrigation project, on the Yakima river and Northern Pacific and Oregon-Washington Railroad & Navigation railways. Rich agricultural and fruit lands surround it. A large shipping business is done. It is supplied with city water, has electric power and light, two churches, a high school and grade school, a public library, and a newspaper.

Grandview: Altitude 809 feet. Incorporated. Population 1910, 320, local estimate 600. A few miles from

the Yakima river, on the Oregon-Washington Railroad & Navigation and a spur of the Northern Pacific railways, and is contiguous to a large area of splendid land under the projected high line canal. Alfalfa and fruit are shipped in huge quantities. It has a water system, electric lights, fire department, three churches, a grade school and a newspaper. One of the state experiment farms is maintained here.

Wapato: Incorporated 1908. Population 1910, 400. An active trading point in the reservation and on the Yakima river, and Northern Pacific railway with the Oregon-Washington Railroad & Navigation and Yakima Valley railways just across the river. 150 square miles of rich land is tributary.

White Swan: Altitude 1100 feet. Population about 200. A new town prettily situated amid the verdure along Toppenish Creek in the interior of the Indian reservation. Stock raising, general farming, sheep raising, fruit and hop growing are the sustaining industries. It has two churches, a high and grade school and one of the United States government Indian schools.

Yakima City: Altitude 1000 feet. Incorporated. Population 1910, 263. This was the original metropolis of the county until the advent of railroads and the founding of North Yakima. It is now a dairying center on the main line of the Oregon-Washington Railroad & Navigation and the Northern Pacific railways, three miles from the county seat.

Outlook: Altitude 667 feet. Popu-

lation, about 200. An enterprising and growing town located in the Sunnyside irrigation project on a branch line of the Northern Pacific railway. Extremely rich soil surrounds the town, and much fruit, especially peaches, are produced. It has a four year high school, two churches, and electric lights.

Selah: Altitude 1100 feet. Population estimated at 200. A prosperous town supported by fruit and hop growing. It is four and a half miles above North Yakima, and connected by street cars, as well as by the Northern Pacific railway. The town supports a newspaper, and has a good grade and high school, also telephone and electric light facilities.

Naches: Altitude 1,500 feet. Population about 250 (local estimate). A prosperous village in the fertile Naches Valley. It makes a specialty of garden truck, fruit and dairying, finding a ready market at North Yakima. A number of Scotch people have settled here. Educational and church facilities are provided.

Nile: Altitude 1,950 feet. A farming village in an elevated valley well up the Naches Creek. Its business is stock raising and dairying. The storage reservoir of the Naches Reclamation Project is near here.

Byron: Altitude 878 feet. A prosperous farming and fruit raising valley on the Northern Pacific railway and near the Benton boundary.

Other agricultural and fruit raising towns and villages of the county are Moxee, Ahtanum, Cowiche and Pomona.

KITTITAS COUNTY.

Natural Features: This county lies just about in the center of the state on the eastern slope of the Cascades. Its northern and western portions consist of rugged and lofty timber covered mountains pierced by many a stream, and encircling a number of beautiful lakes. Great stretches of prairie and hills, barren of timber, but affording good grazing land for sheep and cattle, occupy the southern and eastern parts. The central portion is the famous Kittitas valley, broad and fertile, and sustaining the bulk of the county's population. Through this flows the Yakima river on its way from the Cascade mountains to the Columbia river, gathering up in its course the waters of many contributory streams. About

one-half of the county is mountainous, 25% rolling and the rest level bottom and bench lands. In its wild state the Kittitas valley was covered with sage brush.

Population: According to the 1910 census, its total population was 18,561 or 91.3% more than that of 10 years before. Indications are that the growth has continued. Besides American citizens, English, Canadians, Austrians, Italians, Scandinavians and Germans compose an important part of the population.

Lands: The total area is 1,490,560 acres, of which there is included in the Rainier and Wenatchee forest reserves, 623,870 acres. In 1913 there were open to homesteading 345,545 acres of which

125,545 acres were surveyed and 220,000 unsurveyed. 120,472 acres are state lands. All the remainder is in private ownership. About 200,000 acres of the privately owned land is suitable for agriculture of which more than one-half is tillable and the remainder suitable for grazing purposes.

Soil and Climate: There is a variety of soils in Kittitas county, ranging from the gravelly loam in the north end to the rich volcanic ash and bottom lands of wonderful fertility in the central and southern parts. Hay, grain, vegetables, fruits and livestock do well. Irrigation is practised quite extensively, there being now over 70,000 acres under ditches, while the projected high line will irrigate about 80,000 acres additional. The precipitation at Ellensburg for 1912 was 10.21 inches; at Cle Elum for the same period it was 28.69 inches.

Prices of Land: Unimproved land for grazing may be purchased as low as \$5.00 per acre. Land suitable for hay or grain may be purchased for \$25.00 an acre up. Improved lands under water are offered at \$120.00 to \$500.00. Much of this is in fruit trees or other equally valuable improvements, proximity to railroads also affecting the price. Good land under the "high line" without water rights can be bought at \$25.00 to \$100.00 per acre. This project offers exceptional opportunities to home builders. Ten acres of fruit land or forty acres for mixed farming is considered sufficient for a family. Grazing or grain raising requires much larger areas. Opportunities exist for renting on shares.

Resources and Industries: Farming and coal mining are the two leading industries. Hay, grains, vegetables, fruits, dairy products, live stock, poultry, and bees do splendidly. There are approximately 1,500,000,000 feet of standing timber exclusive of that held in forest reserves which would increase it by about 10,000,000,000 feet more. The assessed valuation of this private timber is \$1,243,307.00. A number of saw mills are in operation with an annual product of about 12,000,000 feet. Logging operations are carried on by outside milling companies, the logs being floated down the Yakima river or transported by rail for manufacture elsewhere. Coal mining is carried on extensively in the Roslyn and Cle Elum coal fields of Kittitas county, the yearly output being between one and two million tons and furnishing employment for over 2,000

men. Gold mining has been successfully prosecuted in a limited way. Many thousands of dollars worth of the precious metal have been mined. The mineral belt shows the presence of gold, silver, copper, iron, cinnabar, nickel and galena, but it is practically undeveloped.

Water: Water for all purposes is inexhaustible, being supplied by ten mountain lakes and the Yakima river with its many tributaries, while the Columbia river drains the eastern borders. Here are also the famous Priest Rapids. The mountain lakes, according to the estimate of an engineer, would supply water power sufficient to turn every wheel in Seattle and Tacoma if \$2,000,000 were expended for development, and the same water could be finally conserved for irrigation.

Transportation: The Northern Pacific and the Chicago, Milwaukee & St. Paul railways run through the entire length of the county and furnish trans-continental connections, 16 passenger trains per day stopping at Ellensburg. The public highways are numerous and kept in good order all through the year. The Sunset highway and state road No. 7 pass through the county. Daily steamboats ply the Columbia river along the eastern shore of the county from the head of Priest Rapids in the southeastern corner of the county to the important points above.

Wages: Farm labor receives from \$30.00 to \$45.00 a month including board. Unskilled labor receives from \$2.50 to \$3.50. Farms, dairies, ranges, mines and lumbering offer abundant opportunities for work.

Markets: Kittitas Valley is the first large body of open agricultural land east of the mountains nearest to Seattle and Tacoma. Its products therefore find a ready market in the big Sound cities and help to supply the heavy Alaska export trade. The tendency is for this trade to increase. Apples, and pears, are shipped to various parts of the United States, and many boxes of winter apples are sent to foreign countries. The coal finds a ready market all along the Pacific Coast as far south as San Francisco and as far east as Livingston, Montana.

Social Conditions: Churches of nearly every denomination exist. Good schools are found in both the rural districts and the towns. Rural free

delivery routes reach nearly every farm house and nearly all are connected with telephone. Many of the farm houses are lighted by gas, have steam heat, water under pressure and all the comforts and conveniences of modern homes. There are 14 post offices, 4 rural routes, 46 school districts and 6 high schools.

CITIES, TOWNS AND VILLAGES.

Cle Elum: Altitude 1,906 feet. Population 1910 census, 2,749. Third in size in the county. Located in the foothills of the Cascades on the banks of the Yakima river and on the main line of the Northern Pacific railway, about half a mile from the Chicago, Milwaukee & St. Paul road. The principal industries are coal mining and lumbering. The coal output of Kittitas county is shipped from Cle Elum, the coal of the Roslyn mines reaching there over a branch line of the Northern Pacific. It is the headquarters for considerable logging operations and an outfitting point for miners, prospectors and sheepmen. Thousands of sheep are shipped through this town on their way to the summer ranges or returning on their way to market or the winter pastures in the river valleys.

South Cle Elum: Altitude 1,900 feet. Population, estimated, 500. A freight division for the Chicago, Milwaukee & Puget Sound railway. Coal mines, timber, farm lands and water power are in the vicinity. Monthly payroll is about \$15,000.

Easton: Altitude 255 feet. Population, U. S. census, 493. In the western part of the county on the eastern slope of the Cascade mountains. The Northern Pacific has a round house here, and the heavy engines, used for helpers through the mountains, are kept at this point. Much undeveloped timber is in the vicinity.

Ellensburg: County seat. Altitude 1,510 feet. Population for 1910, 4,209; for 1900, 1,737. Present local estimate 6,000. It is located in the center of the county on the main line of the Northern Pacific and Chicago, Milwaukee & St. Paul railroads, 120 miles from Spokane. The Yakima river flows near by. Sixty-thousand acres of irrigated land surround it. Resources of the county lie at its command. There exists here almost equal balance between the interests and pursuits of a modern metropolis and those of a rural trading center. It is the Northern Pacific division point, has the Wash-

ington Woolen Mills, two fifty-barrel flour mills, three creameries, four lumber yards, a glove factory and 200 other enterprises. Opportunities exist for factories. Surrounding land unimproved is from \$50.00 to \$100.00 per acre.

It has municipally owned water plant, electric lighting system, and a paid fire department. Three miles of streets are asphalt and 17 miles of walks are cement. It has a public library, eight churches with a total membership of 2,105, a high school, one private academy and one of the three state normals. There are three weekly newspapers and one daily. County fair is held here. Progress is being made in completing the plans for the irrigation of an additional 80,000 acres of land by the "high line canal."

Kittitas: Altitude 1,600 feet. Estimated population 225; American and Danish. A new town in a fertile valley and on the Chicago, Milwaukee & St. Paul railroad, six miles east of Ellensburg. The building of the new irrigation canal will influence future growth. It has two churches, a high school, telegraph and telephone connections, and a weekly newspaper.

Roslyn: Altitude 2,225 feet. Population 1910 census, 3,500. Austrians, Hungarians, Italians, Germans, Russians, Poles, Swedes, Norwegians, and Danes. About 20% are English speaking. It is essentially a coal mining town, which accounts for the large foreign population. One of the most important coal fields on the Pacific coast is here. The Northern Pacific railway runs across the southern end of the field and has a branch line from Cle Elum through the middle of the field to Beekman. There are six churches, two grade schools, one high school, free public library, weekly newspaper, telegraph and telephone lines and a five and a half acre play ground controlled by school board.

Thorp: Population (local estimate) 350. A farming community in the upper portion of the Kittitas Valley, about 10 miles from Ellensburg on the Northern Pacific and Chicago, Milwaukee & St. Paul railroads. Surrounding this is the oldest irrigated section in the county. It has two churches and a high school. Between Thorp and Ellensburg is a creamery encouraging dairying on a paying basis.

Galena, a mining town, and **Boylston** are other trading centers.

CHELAN COUNTY.

Chelan county lying in north central Washington is a mountainous and rolling country, having the main range of the Cascade mountains as its western and northern boundary, while the Columbia river laves its eastern shore and receives the waters of the several streams that flow through fertile valleys, reaching into the heart of the Cascades. Within three of these valleys lie the larger portion of the best tillable area. These are the Lake Chelan region and the valleys of the Entiat and Wenatchee rivers. The connecting highway between these districts is the Columbia river. Alternating with the valleys are areas of bench lands and high rolling table lands. From 50 to 60% of the country is mountainous, 30 to 35% rolling, and 10% level.

The peculiar natural setting of the county well adapts it for a summer resort region. Forests, mountains, streams, lakes, waterfalls, and climate, aided by rich productive land, famous for the big red apple as well as other fruits, are especially inviting to tourists. Lake Chelan, from one to four miles wide and fifty miles long, is one of the most picturesque bodies of fresh water in the world.

Population: In 1900 the population was 3,931; in 1910, 15,104; a gain of approximately 284.2%. A rapid growth is still being experienced. The people are largely American born, with some Scandinavians and fewer Germans.

Land: Out of the total area of 1,856,000 acres, 1,740,880 acres are taken up by the Chelan and Wenatchee Forest Reserves, 52,526.50 acres are state land, 23,300 acres are subject to homesteading and the remainder has passed into private ownership. Altogether there are about 200,000 acres suitable for agriculture. One-half of the rest could be used for grazing.

Soil: The soil, composed of volcanic ash and decomposed granite rock, is from one to thirty feet deep. The valleys and bench lands are best adapted to fruit raising and dairying, the higher lands to hay, grains, etc. The climate is regular and very little rain falls during the summer. The annual precipitation is about 12 inches, including 8 to 14 inches of snow during the winter. Irrigation is practiced in the valleys with maximum success and profits. On the highlands some dry farming is carried on.

Prices of Land: The prices for unimproved land with permanent water

right range between \$200.00 and \$400.00 an acre. Undeveloped dry lands may be purchased for from \$5.00 to \$100.00 an acre according to its proximity to the railroad and transportation centers. Improved orchard lands may be had at prices ranging from \$500.00 to \$1,200.00 an acre. Specially desirable pieces of income bearing orchards close to the larger cities will run considerably higher, but they will produce good interest on the prices asked. Value of improvements vary according to acreage cultivated, the number and age of trees, extent of fences and flumes, character of buildings, etc. Five to 10 acres of fruit land is sufficient for an ordinary family. Opportunities for leasing improved land on shares are occasionally offered.

Resources and Industries: The production of the famous red apple, with peaches, pears, apricots, cherries and plums in the order named has been the main industry of the region. In this respect it is one of the two leading counties in the state, having a total acreage of apples alone of nearly 35,000 acres. The fruit crop for the county in 1913 was over 4,000 carloads, 3,924 of which were apples. Soil and climate are particularly well adapted for such enterprise. Grain, hay, potatoes and other farm products grow extensively and would pay well if greater attention were paid to their production. Dairying, stock raising, lumbering, and mining are also important, but much less developed. The ores found are quicksilver, copper, gold, gypsum and zinc.

Water: Wonderful water power is available; Chelan river and lake, 300,000 H. P.; Wenatchee river, 25,000 H. P.; Entiat river, 15,000 H. P.; Icicle and Snow creeks, 15,000 H. P.; Columbia river, 400,000 H. P. There are a great many smaller streams with from 100 to 500 horse power. There is also an unlimited supply of pure mountain water for every other known purpose.

Transportation and Markets: The main line of the Great Northern running in a general east and west direction, the Wenatchee-Oroville branch from Wenatchee to Oroville, and the Wenatchee Valley from Leavenworth to Wenatchee Lake are the railroads of the county. A branch line also runs from Leavenworth to Waterville and Mansfield in Douglas county. These lines with steamboat transportation on

the Columbia river and on Lake Chelan, with regular auto stage service to interior points, and with many public highways in good condition, make all inhabited portions of the county easily accessible. The completion of the Cascade scenic highway from Wenatchee to Seattle over the Cascade mountains will furnish an auto road for many trans-continental tourists. The products of the county find ready markets in the produce centers of the United States, England, France, Germany and Australia. Fair prices have always prevailed.

Wages: For general farm work wages paid range from \$30.00 to \$40.00 per month, with board. Wages without board run from \$2.25 to \$2.75 per day. Work is usually available the year round and in all lines of organized labor including mining, lumbering, etc., but a special demand exists for workmen in the harvest season. Fruit pickers get \$2.50 per day and packers about \$4.00 a day. Unskilled common labor is paid from \$1.50 to \$2.50 per day, while skilled workmen receive a daily wage of from \$3.00 to \$5.00. Where this latter work is distant from town, board and room are generally furnished also.

Social Conditions: Social conditions are all that can be desired. There are churches of every denomination; schools of recognized excellence; branches of leading fraternal organizations; newspapers of merit; telegraph and telephone connections; and the usual comforts and conveniences known to modern civilization. The "Fair Hesperides" is held at Wenatchee in the month of October. The variety and quality of the exhibits displayed are convincing evidences of the wonderful productive powers of the region. There are 25 post offices, 8 rural routes, 55 school districts and 11 high schools.

CITIES, TOWNS AND VILLAGES.

Wenatchee: County seat. Altitude 680 feet. Population 1910, 4,050. In 1910 only 451. Local estimate 5,500. Area three square miles. Its growth represents the development of the Wenatchee valley from a sage brush slope into one magnificent orchard. It is picturesquely situated at the confluence of the Wenatchee and Columbia rivers with the foothills of the Cascade mountains two or three miles away. It is now the financial center for north central Washington and the largest city on the Great Northern railway be-

tween Spokane and tidewater. It is also served by the Wenatchee-Leavenworth-Mansfield branch, the Wenatchee-Oroville branch and regular boats on the Columbia river, as well as by regular auto stage to all the main points in Chelan, Douglas and Okanogan counties. It is a shipping point for a vast fruit growing section, also for much wheat raised in the "Big Bend Country." In 1912, 3,118 cars of fruit were shipped. The production for 1913 will be about the same.

The city has excellent water supply and electric lights supplied by the Wenatchee Valley Gas and Electric Company, eight miles of paved streets, and a paid fire department. There are 10 churches, four grade schools and one high school, a public library of 3,300 volumes, a city park and fair grounds; two daily newspapers and two weeklies.

Leavenworth: Altitude 1,165 feet. Population 1910, 1,551. Local estimate 2,000. A rapidly growing and active city. Terminal point of Great Northern railroad with monthly payroll of \$25,000.00 to \$30,000.00. Surrounded by mountains 1,000 to 7,000 feet high with outlets on the east, north and west. Nearby is abundance of fruit and farm lands. Two large lumber companies operate here with saw mills, planers, and box factories and with a capacity for from 25 to 40 million feet. There is also a steel manufacturing plant. Vast water power, quantities of limestone, marble, asbestos, and other minerals are available. City has brick business blocks, two newspapers, four churches, a high school, grade school, public library, telephone system, public park, electric lights, splendid water, and a volunteer fire department.

Cashmere: Altitude 978. Population 1910, 625. Local estimate 1,000. Located on the main line of Great Northern railroad and in the very center of the Wenatchee Valley, it has become the distributing point for the "Vale of Cashmere." It is surrounded by a vast belt of timber which keeps two saw mills and two box factories busy. Many acres of fruit land are tributary and about 1,100 cars of fruit are shipped annually. City has electric lights, municipal water, volunteer fire department, seven churches, a high school, two grade schools, public library, telephone system, city park, and one weekly newspaper.

Chelan: Altitude 1,120 feet. Population 1910, 682. Local estimate 800. Transportation is by stage to Wen-

atchee and Chelan Falls, and by Columbia river steamers. It lies at mouth of Lake Chelan on both sides of the Chelan river and four miles from the nearly completed Oroville-Wenatchee branch of the Great Northern railroad. Much very fertile irrigable and non-irrigable land is tributary and the city is doubtlessly destined to become a beautiful summer resort. The Chelan river, in a course of only four miles, has a sheer drop of nearly 400 feet, producing about 100,000 H. P. It has a large saw mill, five churches, high school, telephone system, electric lights, volunteer fire department, two weekly papers and a public park.

Lakeside: Altitude 1,180 feet. Population 1910, 222. Local estimate 360. Located by the lake just west of Chelan, which it resembles in transportation facilities and general surround-

ings. Town is supported by farming and fruit raising. It has city water, electric lights, one church and a good school. Good opportunities for investment exist.

Monitor: A fruit center of about 300 population in the Wenatchee valley between Wenatchee and Cashmere, and on the Great Northern railroad. About 700 cars of fruit are shipped annually. It has a high school, church and electric lights.

Other centers are Entiat at the entrance to the Entiat valley, Peshastin, Dardanelles, Stehekin, a summer resort at the head of Lake Chelan, Brief, and Maplecreek, Malaga, Chiwaukum, Dryden, Blewett, Merritt, Manson, Faris, Lucerne, Lone Rock, Dover and Moore. Altogether there are 24 post offices in the county.

OKANOGAN HIGHLANDS.

OKANOGAN COUNTY.

This county enjoys the distinction of containing the place where the first white settlement under the American flag in the state of Washington was started.

Topography: It is the largest county in the state and has a total area of 5,221 square miles. About 15% of the county consists of low mountain ranges cut up into rich fertile valleys. The highest of these mountains are in the northeastern part of the county and near the western boundary. The Okanogan river flowing nearly due south into the Columbia, cuts the county into two almost equal parts. Many smaller streams flow into this from both directions, while the Methow emptying also into the Columbia drains the western portion of the county. Within these two valleys are vast areas of level land much of which is river bottom and fertile plateaus of many acres in extent. The south half of the county east of the Okanogan river is included in the Colville Indian reservation. The elevation varies from 750 to 8,300 feet.

Population: The census report for 1910 gives the county a population of 12,887; while the report for 1900 shows only 4,689, nearly 175% increase in ten years. The proportion for the past three years is undoubtedly even larger while the next few years will

probably bring other great changes, as the important development work now under way progresses. About eighty per cent of the people are American born, with Canadians, Germans, English and Scandinavians ranking in the order named. The largest share of the population is to be found in the two large valleys mentioned above.

Lands: The total area of the county is 3,341,440 acres. Out of this the United States holds, in forest reserves, 1,962,740 acres, in the Colville Indian Reservation over 600,000, and in unreserved and unappropriated lands 209,418 acres. The state holds 72,252.51 acres, leaving in private ownership over 500,000 acres.

The greater portion of the best agricultural land lies in the Okanogan and Methow river valleys, both of which are noted for soil fertility. The highlands are splendid for the production of grain. About 25% of land (not considering reserves) is tillable and the balance suitable for grazing. Irrigation is practiced quite generally in the valleys. The government irrigation project watering 10,000 acres is around Omak.

It is believed that the Colville Indian Reservation extending also into Ferry county will be thrown open to settlers within the near future. Within

this is some of the best land in the state.

Soil: The soil is composed of a rich loam in some portions and in others of the fertile volcanic ash. Along the Okanogan valley the soil is mostly a fine volcanic ash mixed with sand in varying quantities. The subsoil is usually sufficiently porous to insure excellent drainage and prevent souring of the land.

Prices of Land: Unimproved land is being offered at from \$10.00 to \$100.00 per acre, according to its character and location. Where sage brush prevails the cost of improving is approximately the same as in similar sections of eastern Washington. Improved land may be purchased at from \$20.00 to \$250.00, the price being governed by the nature of improvements and the location of the land. The larger prices are for irrigated orchard lands which in many cases will run even higher. There are some opportunities for leasing improved lands on shares.

Resources and Industries: In the early days grazing constituted the chief industry. It is still of great importance and the county now ranks among the first in the production of beef cattle. Wheat and oats however are assuming some importance on the uplands while fruit and alfalfa are rapidly gaining in the valleys. It has the fourth largest number of apple trees in the state. Much attention is also given to dairying. Mining development has been slow. The mineral deposits are gold, silver and copper. Near Oroville large deposits of epsom salts are to be found. There is also considerable standing timber.

Water: The Similkameen river is capable of furnishing some 10,000 horse power, and the Methow river, now undeveloped, has potential power of large magnitude, while many small streams may also be utilized for generating energy. Water for irrigating purposes is ample for all of the demands which are likely to be placed upon it. Three large rivers and many small streams as well as lakes furnish a good supply. For domestic uses it is obtained from wells, which may be sunk with very little trouble, or taken from the upper Okanogan and the smaller streams.

Transportation and Markets: In the past lack of transportation facilities have tended to hold back the development of this county. River boats have been the chief means of carrying pro-

ducts and supplies, and they will continue in importance for the transportation of non-perishable freight. Regular boat service exists at present throughout the year between Brewster and Wenatchee, but the Okanogan is navigable only during the spring months. In the future, however, the Okanogan extension of the Great Northern reaching from Wenatchee to Oroville, will afford rapid transit to the important markets of the world, including Vancouver, B. C., Spokane and the coast cities. Many cattle and sheep are now shipped direct to Chicago and other eastern markets.

The county is to have secondary state roads Nos. 10, 12 and 13. Present roads are good and regular automobile stages run between the main centers.

Wages: The general run of work consists principally of such labor as is incident to farming pursuits and caring for stock. The usual wage is from \$40 to \$60 a month with board. Skilled labor receives from \$4 to \$6 a day. A limited amount of employment for unskilled labor may be found in the lines of horticulture, mining, and highway, railroad and ditch building. The wage corresponds to that offered for farm labor.

Social Conditions: Schools and churches are found wherever needed. Telegraph and telephone lines reach nearly every settlement and the rural free delivery of mail serves most of the county. Civic clubs and fraternal bodies are found in the larger settlements. Ten newspapers keep the residents in close touch with all doings of the outside world. There are 68 school districts, 17 high schools and 35 post offices.

CITIES, TOWNS AND VILLAGES.

Okanogan: Altitude 850 feet. Population (census 1910) 611. Estimated 800. Situated on the Okanogan river and Great Northern railway. It has a flour mill, two planing mills, three saw mills, a creamery, and spraying material factory, while in the immediate vicinity fruit growing and general farming is successfully carried on. A large body of irrigable land is adjacent. The town possesses four churches, grade and high school, free library, local telephone service, two parks, a newspaper, municipal water system, and a fire department.

Oroville: Altitude 930 feet. Population (1910 census) 495. Present estimate 800. A growing town, located on

the Great Northern railway, five miles south of international boundary line. Considerable mining is done in the vicinity. Surrounding uplands are planted to grains, and the valley lands, under irrigation, to fruit and alfalfa. Two irrigation districts covering 10,000 acres of choice lands are adjacent. It has railroad machine shops and a creamery, also four churches (Episcopal, Presbyterian; Methodist, and Catholic), one high and two grade schools, local and long distance telephone service, weekly newspaper, modern water system, electric lights, and volunteer fire department. The surrounding country is beautiful and the city gives promise of growth.

Pateros: Altitude 780 feet. Population (local estimate) 316. Situated at the confluence of the Methow and Columbia rivers, it is served by steamboat and the Great Northern railroad. There are 1,500 acres of land under irrigation close by with 14,000 more to be irrigated very soon, also a large area of dry farming lands not far away. It is an important shipping point for cattle. Three religious denominations are represented. One high and two grade schools, local and long distance telephones, and one newspaper are maintained.

Riverside: Altitude 856 feet. Population 250. Beautifully located in a rich valley at the head of navigation on the Okanogan river and the Great Northern railway. Diversified farming such as dairying and fruit, stock and poultry raising support the town. It has a lumber mill, planing mill, box, sash and door factory, one church, one grade and one high school, telephone service, and a newspaper. The Okanogan County Fair and Interscholastic Athletic meet are held here annually.

Twisp: Altitude 1,619 feet. Population, 1910, 227. Local estimate for 1913, 375. Situated near the center of the Methow valley. Diversified farming is successfully practiced and many beef cattle are shipped. Saw mills and mines are also wealth contributors. It has a large creamery, four churches, one grade and one high school, local telephone system and a weekly newspaper. The Methow Valley Fair is held here annually. Transportation is by stage to Pateros.

Winthrop: Altitude 1,765 feet. Population of town itself about 100. In the immediate district there are estimated to be 1,000. Situated at the junction of the forks of the Methow river, it becomes the upper trading point in the

Methow valley, a rich farming country. It has no railroad, but regular automobile stages give good service. General stores, a creamery, two saw mills, a fruit cannery, two churches, good school facilities, telephone service, public park and a weekly newspaper are maintained.

Conconully: County Seat. Altitude 2,817 feet. Incorporated 1908. Population 1910, 257. It started in 1888 as a mining town. Productive mines which support a smelter and afford a cash revenue for the town are still being operated near by. The town is sixteen miles west of the Columbia river but will soon be served by a branch line of the Great Northern railway now operating along the river. It has a three year high school, a grade school, and one church. It is served with telephone, electric lights, and a volunteer fire department.

Brewster: Altitude 800 feet. Population 1910 census, 296. Present estimate 400. Town lies on level bench 30 feet above Columbia river near its confluence with the Okanogan. Daily boats come up and down the river. The Wenatchee-Oroville branch of the Great Northern passes through. Town is supported by fruit culture and stock raising without and a saw mill within. There are three churches a high school, and newspaper. Close by is the site of Fort Okanogan, the first settlement and fort in the state of Washington.

Chesaw: Altitude 2,927 feet. Unincorporated. Estimated population 200. The town lies in a beautiful valley in the foothills of the Cascade mountains three miles distant from the Great Northern railway. Farming, mining, lumbering and cattle and sheep raising are important in vicinity. There is a Methodist church, a high school, and newspaper.

Omak: Altitude 850 feet. Unincorporated. Estimated population 300. It is situated on the Great Northern railway and Okanogan river in the center of the government irrigation project irrigating 10,000 acres. It is the natural gateway to the Colville Indian Reservation. Orchardng and general ranching are the sustaining industries. Orchard lands close to town sell for from \$250.00 to \$500.00 an acre. General farming lands are offered as low as \$25.00. There is one church, a high school, and weekly newspaper.

Methow: Altitude 1,158 feet. An attractive settlement situated on the banks of the Methow river 12 miles

from its mouth. Excellent fruit is produced on the irrigated valley lands, and grain on the drier uplands. Gold, copper and antimony have been discovered in the contiguous mountains.

Tonasket: Altitude 900 feet. Population (local estimate) 200. A new town located on the Okanogan river in the midst of a rich diversified farming region, about 20 miles from the

boundary line. Within a radius of four miles seven valleys join with the Okanogan. Town has a flour mill, creamery, three churches, and good school facilities. Good opportunities exist. The Wenatchee-Oroville branch of the Great Northern passes through.

Other important towns and trading centers are Nespelem, Chopaka, Loomis, Beck, Anglin and Bodie.

FERRY COUNTY.

Ferry county is in the middle of the stretch of country known as the Okanogan Highlands in the northeastern part of the state and midway between the Cascade and Rocky mountains.

Topography: It presents a beautiful combination of mountains, rolling hills, and low ridges interspersed with valleys, green fields, streams and lakes, with a general slope toward the Columbia and Kettle rivers. Water thus more than half encircles the entire county. The Kettle river and Curlew valleys have at present received most of the development, although nearly all parts are endowed by nature for the happiness of mankind. About 20% of the county is rolling, 20% level and 60% either hilly or mountainous.

Population: The 1910 census enumerates a population of 4,800. A steady growth has taken place since. Americans predominate. Scandinavians and Germans are well represented.

Lands: The county contains a total area of 1,420,800 acres. The southern half, however, comprising about 700,000 acres is held in the Colville Indian reservation, while 514,934 acres out of the northern half are included in the Colville Forest Reserve. 25,154 acres more belong to the state and 29,812 acres of Federal lands are open to homesteading, leaving in the hands of private owners not more than about 130,000 acres. It is thought that the Indian reservation will be thrown open to settlers within the near future. About one-half of the county is tillable and the remainder good for pasture.

Soil and Climate: The soil in the valleys is a black loam from one to five feet deep, eminently suitable to diversified farming. The plateau soil is a clay loam and very fertile. Wheat, barley, oats, alfalfa, timothy, potatoes, roots, fruit and berries all thrive in this soil. The climate is mild and irrigation is not practiced, the rainy season providing ample moisture. The

annual precipitation at Republic is about 18 inches.

Prices of Land: Much unimproved land may be had at from \$5.00 to \$10.00 an acre, with the cost of improving estimated at from \$5.00 to \$30.00. Improved lands (not so plentiful) bring from \$10.00 to \$100.00 an acre. Improvements consist principally of fences and buildings. Improved lands may be leased on the basis of one-third of crop to owner. Cultivated Indian allotment lands can be leased for a term of from one to five years at a yearly rental of \$1.00 to \$1.50 an acre. Eighty acres will make a splendid home.

Resources and Industries: Dairying, stock raising, mining, lumber manufacturing, and diversified farming constitute the main industries. Some of the richest gold mines in the state are in this county and bid fair to yield heavily in the future. The main timber resources are locked up in the reserve. There is abundance of water power, but none has yet been developed. This is also one of the finest game counties in the state.

Water: There is a plentiful supply of water available for irrigation purposes, but thus far there has been very little irrigating done. An abundant supply of excellent quality for domestic uses is supplied by springs and mountain streams.

Transportation and Markets: The Great Northern and Spokane & British Columbia railroads run through the central and northern portions of the county. The Columbia river, along the eastern side, is navigable between Bridgeport, in Douglas county, and Kettle Falls in Ferry county. State road No. 4 runs from the southern line to the north-central portion of the county, forming a junction at Republic with state road No. 13 which crosses the entire county at that point from west to east. The county roads are kept in good condition throughout the

year. Republic, Spokane and the cities of British Columbia furnish a good market for all products of the county.

Wages: Work is found in the farming districts during the seasons with wages paid at the rate of \$40.00 a month with board and \$60 without board. Work may be had in the saw mills, tie, and logging camps with daily wage of \$2.00 for unskilled and \$4.00 for skilled labor. In mining camps wages average \$3.50 per day.

Social Conditions: The social conditions will compare favorably with the older and more settled counties of the state. Churches, grade and high schools are plentiful and conveniently located. Mail, telegraph and telephone facilities are adequate and reach every section. Commercial clubs and fraternal organizations are found in the settled communities. There are 14 post offices and 29 school districts.

CITIES, TOWNS AND VILLAGES.

Along the Great Northern, the Spokane & British Columbia railroads and the Columbia river there are innumerable stations and towns, each important as a shipping point. Those having postal service are Republic, Boyds, Covada, Curlew, Danville, Ferry, Incheilium, Keller, Laurier, Lorin, Malo, Meteor, Orient and Rockcut. The towns of more importance are Boyds, Curlew, Orient and Republic.

Orient: Altitude 1,500 feet. Estimated population 200. Town is on the Great Northern railway and the Kettle river, in the northeastern part of the county. It was formerly supported entirely by mining and lumbering but

now dairying, stock raising and grain growing have become important industries. One hundred thousand bushels of wheat were produced here in 1912. Saw mills, wood working factories, brick and pottery plants and kindred enterprises would be successful.

Republic: County seat. Altitude 2,682 feet. Population 1910, 999. Present local estimate 1,600. It was primarily a mining town and is still famous for the wonderful quartz mines surrounding. It is the county terminal of the Great Northern and Spokane & British Columbia railroads. Natural setting among hills covered with clusters of pine, fir and tamarac timber make it especially beautiful. Mining and quartz milling are principal industries. There are two cyanide ore reduction plants, of which one is in active operation. About 200 tons of ore are shipped daily and 100 tons treated locally. Monthly payroll for city is about \$30,000.00. Surrounding country is suitable for horticulture, cereal raising and general farming. A number of saw mills are also operated in the vicinity. It has four churches, one high and two grade schools, pump and gravity water system, electric lights, volunteer fire department, telephone system, and two newspapers.

Curlew: Altitude 1,850 feet. A dairying center located on the Kettle river near the northern boundary line. Stock raising and lumbering are important in the vicinity. The Great Northern and the Spokane & British Columbia railroads give excellent service.

STEVENS COUNTY.

The county originally comprised, in addition to its present territory, what is now known as Ferry and Pend Oreille counties. Ferry county separated by the Columbia and Kettle rivers bounds it on the west, while a ridge of mountains is the dividing line from Pend Oreille. The Colville river having its source in Loon Lake, flows northwest till it empties into the Columbia a few miles below the mouth of Kettle river. Within this valley is the largest area of the county's agricultural land. The entire county was covered with timber, only a small portion being as yet cleared up and devoted to agriculture. Many pretty lakes are to be found in various places, while the natural scenery caused by

mountains, forests, and valleys, vies with most parts of the country.

Population: The combined population for Stevens and Pend Oreille counties was 25,297 in 1910. Of this it is estimated that about 7,000 belonged to Pend Oreille county, leaving over 18,000 to Stevens. It is safe to estimate considerable growth in this section of the state during the past three years, as much development has been taking place.

Lands: Total area of county is 1,575,680 acres, of which 147,442 acres are included in the Spokane Indian Reservation in the southern end of the county, and 63,080 acres in the Colville Forest Reserve. In addition there are 139,351 acres of unappropriated and

unreserved Federal lands, described as mountainous, farming, and mineral, and 100,768 acres of state lands. This leaves more than a million acres already in private ownership, much of it being homesteads not yet proved up, logged-off areas owned by milling companies, and timber lands. About half of the county holds splendid prospects for agricultural development, and will make an excellent dairying section. Bulk of land is in the Colville valley, but there is also much along the Columbia and Kettle rivers. In the Columbia river valley is much irrigated land where fruit raising is carried on in addition to hay and grain.

Soil: Along the river valleys the soil is a heavy black loam with a sub-soil of yellowish clay. The plateaus partake of the volcanic ash nature. Diversified and intensive farming can be carried on successfully, the land being well adapted to products of a temperate climate. Precipitation is from 20 to 25 inches yearly.

Prices of Land: The prevailing prices for unimproved land ranges from \$5.00 to \$30.00 an acre, in most parts of the county the price being regulated largely by proximity to railroads and suitability for agriculture. It is estimated that this can be placed under cultivation at from \$10.00 to \$60.00 an acre. The prices for improved land range from \$50.00 to \$100.00, governed by the nature of improvements and distance from railroads. There are pieces in the Columbia river valley set out to fruit that will cost considerably more. There are as good opportunities to get cheap land in this county as in any part of the state. It is estimated that from 40 to 160 acres, excepting irrigated parts, would be sufficient for the needs of the ordinary family. Opportunities exist for the leasing of lands on a basis of about one-third of the crop delivered.

Resources and Industries: The resources of this county are quite varied. Over three-billion feet of standing timber remain, while indications of considerable mineral deposits, including gold, silver, copper and lead, are found in the mountains. There are also large deposits of marble, including a wide range of colors from pure white to blue. The water power is unlimited especially in the Columbia river at Kettle Falls. Saw mills are in nearly every town along the Colville valley. In this valley also and along the

Columbia river are many acres of splendid agricultural land, along the Columbia there being considerable irrigation carried on. Much fruit is raised here while timothy, alfalfa, oats, wheat and corn have all been found suitable for the soil.

Transportation and Markets: The Columbia river is navigable for a distance of 150 miles between Kettle Falls and Wenatchee. The Great Northern railway traverses the county from Clayton in the southeastern corner to Boundary on the Canadian boundary line.

The Central Washington highway, a primary road under construction by the state, crosses from southeast to northwest. State road No. 2, having its starting point at Orient, in Ferry county, crosses from east to west into Pend Oreille, thence south to its termination at Newport on the Idaho state line. The principal market for produce not needed in the county is Spokane.

Wages: The usual wages paid for labor, including board, amounts to \$35.00 to \$40.00 a month. Unskilled labor is paid from \$2.50 to \$3.00 a day. Sawyers get \$4.00 to \$5.00, and filers \$7.00 to \$9.00 per day. The saw mills and timber camps as well as the farms give plenty of opportunities for obtaining work.

Social Conditions: A high standard generally prevails in this county. It contains 49 post offices, 10 rural routes, 126 school districts, and 15 high schools. Fraternal organizations, commercial clubs, churches of all denominations, newspapers, telephone and telegraph facilities, minister to the people's needs in the various communities.

CITIES, TOWNS AND VILLAGES.

Colville: County seat. Altitude 1,650 feet. Population, census of 1910, 1,512; estimated 1913, 2,200. Mostly American. Situated in the northern end of the Colville valley where that valley broadens out to include much rich agricultural area. It is the center of a very productive fruit raising, mining and timber section located 87 miles north of Spokane on the Great Northern railway, having direct telegraph and telephone connections with Spokane and with Rossland and Nelson, British Columbia. Town has three banks, first class hotels, two newspapers, a creamery, hospital, new \$9,000 post office, flouring mill, brick yard, cement block factory, tombstone

factory, electric light and power plant, a big saw mill with dry kiln and fifteen other saw mills in the immediate vicinity, nine church organizations, one grade school, a \$35,000 high school, sixteen fraternal bodies and an active Chamber of Commerce which assumes most of the public responsibilities of the town. An annual street fair and agricultural exhibit is held at Colville during September.

Chewelah: Altitude 1,668 feet. Population 1910, 823. Local estimate 1,500. Located on the Oroville branch of the Great Northern railroad in the Colville valley. Much fertile farming land suitable for dairying and fruit production surrounds it. Mining is one of the leading industries. This, together with lumbering and development of farms, has caused a rapid growth. A big brick plant is also here. Work exists here during almost the entire year at good wages. Town has municipal water system, municipal electric lighting, paved streets, volunteer fire department, six churches, a high school, two grade schools, a private school, telephone system, city park and one newspaper. An annual agricultural fair and school exhibit is held here.

Gifford: Altitude 1,800 feet. Population, local estimate 150. An agricultural and trading center on the upper Columbia river. Some lumbering is carried on in vicinity. It has a pipe factory, box factory, and monthly paper. Successful farming is carried on both with and without irrigation.

Hunters: Altitude 1,640 feet. Population (local estimate) 300. Situated in Hunters valley near the Columbia river. A splendid garden spot where land is successfully worked either with or without irrigation. Transportation is by boat, with the Great Northern railroad building to Spokane river. Town has a creamery, a high school, three churches, and electric lights.

Kettle Falls: Population 1910, 377. Located in the midst of an irrigated section known as the Kettle Falls Valley. Fruit, especially apples, are successfully grown. Nearby are the falls

of same name, often called the "Niagara of the West." Town has a high school, and four churches, city owned water and electric lights.

Springdale: Population (local estimate) 250. Located on the Great Northern railroad 47 miles north of Spokane. Area one square mile. A timbered region that is rapidly being cleared and placed under cultivation. Much good agricultural land is here. Logging is important and several saw mills are in the vicinity. It has good schools, congregational church, electric lights, telephone system, and a newspaper.

Marcus: Altitude 1,280 feet. Estimated population 600. Area two square miles. A truly western town and Great Northern railroad center located near the junction of the Columbia and Kettle rivers. In the vicinity are mining, lumbering and agricultural resources which are gradually being developed. The Great Northern round house and shops maintain a good payroll. There are three churches, a high school, good water supply, electric lights, volunteer fire department and newspaper.

Northport: Altitude 1,335 feet. Estimated population 500. Beautifully situated in the northern part of county on the bank of the Columbia river, with a commanding view of mountains, valleys, and river. Transportation is by Great Northern railway. There are marketed here many cedar poles, ties, saw timber and wood. Dairying and diversified farming are carried on. Town has two churches, a high school and newspaper.

Clayton: Altitude 2,252 feet. Estimated population 350. Located in the midst of a good dairy and fruit section, 31 miles from Spokane by the Great Northern railway. A \$350,000.00 brick and terra cotta plant supplies a pay roll of about \$15,000.00 per month. Some saw mills are in the vicinity.

Other important towns and trading centers are Orin, Kane, Harvey, Boundary, Gerome, Bossburg, Arden, Fruitland, Bissell, Cedonia and Blue Creek.

PEND OREILLE COUNTY.

Pend Oreille county, the newest county in the state, was organized in 1911.

Natural Features: It is situated in the northeastern corner of the state with the Canadian and Idaho lines for its northern and eastern boundaries.

A river of the same name traverses the county from the southeast to the northwest and, after receiving the waters of many tributary creeks, joins with the Columbia at the Canadian boundary line. It is navigable in the southern part but becomes more turbu-

lent as it works through the mountainous country above Ione. The agricultural area lies chiefly in the valleys formed by the river and its tributaries and is bounded by the mountain ranges that extend on either side practically the entire length of the county. Altogether about 50% of the county is rolling, 5% level and 45% mountainous. There are many lakes in the county, of which the principal ones are Sullivan, Bead, Calispel, Diamond, and Sacheen.

Population: The estimated population of the county is about 7,000 of which 70% are American born, the remainder being Scandinavians, Greeks, Austrians and Bulgarians.

Lands: The approximated total acreage amounts to 898,560, of which there are held in the Kaniksu Forest Reserve 397,936 acres; surveyed government lands, 35,661 acres; unsurveyed government lands, 39,011 acres and state lands 43,618 acres. The tillable lands will approximate some 450,000 acres while the balance of the county, now accounted as non-tillable, is well adapted to grazing and stock raising. It is estimated that about 10% is bottom land and about 90% bench land. Diversified farming can be profitably carried on and irrigation is unnecessary. As this is a new county with a comparatively small amount of development there is considerable land to be obtained. Many homesteads are as yet not patented.

Soil: Level and bottom lands along the rivers, creeks, and lakes, are composed of deep rich loam suitable for grains and grasses. The balance of the tillable land is of the red volcanic ash formation highly adaptable to fruits, berries and grasses. Most of the non-tillable land is suitable for grazing. Mild winters and temperate summers prevail.

Price of Land: Unimproved land may be had at prices ranging from \$3 to \$25 per acre, with the cost of putting it under cultivation estimated at from \$10.00 to \$60.00. Improved land is offered at from \$50.00 to \$100.00.

Resources and Industries: Agricultural lands, immense bodies of timber and many mines, all play important parts in enhancing the county's wealth. It is estimated that there are over 10,000,000,000 feet of timber in the county, enough to last the present mills many years. Mining is just beginning to develop. Lumbering and cultivation of grains and grasses form

the main industries. Considerable grazing is also carried on.

Water Power: An almost unlimited water power is supplied by the Pend Oreille river. Sullivan creek now operates a \$1,000,000 cement plant. On the 29th day of July, 1913, the interior and agricultural departments of the United States approved a power permit to the International Power & Manufacturing Company for the development of a power project at Z Canyon on Clark Fork. This will result in one of the largest projects in the country for the development of cheap power. At low stages of water, 120,000 continuous horse power can be developed, and by storage reservoirs this minimum can be brought up to 350,000 horse power. The permanency of this grant depends on careful adherence to the general regulations. The maximum rate to the public is fixed at six cents per kilowatt. If the company charges are less, the government rates to the company are less in proportion.

Transportation and Markets. The main line of the Great Northern railway runs across the southeastern corner of the county. The Idaho & Washington Northern railroad parallels the Pend Oreille river along its entire course as far as Metaline Falls.

No trouble is experienced in disposing of products at fair prices. Outside of the county Spokane is the chief market.

Wages: Farm labor is paid from \$30.00 to \$50.00 a month, with board. During harvest the wages are from \$2.00 to \$3.00 a day. Unskilled labor receives from \$2.50 to \$3.00 a day and skilled labor \$3.00 to \$6.00 a day.

Social Conditions. Churches and schools are sufficient. Telegraph and telephone lines reach to every settled community. Newspapers, fraternal organizations and commercial clubs are found in the larger towns. There are 31 school districts and 3 high schools.

CITIES, TOWNS AND VILLAGES.

There are twenty-one post offices as follows: Blueslide, Calispell, Camden, Cement, Crescent, Cusick, Dalkena, Ione, Jared, Locke, Lost Creek, Metaline, Metaline Falls, Newport, Penrith, Ruby, Scotia, Sullivan, Tiger, Tweedie and Usk. Each serves as a shipping point and trading center. Several of them are important for lumber manufacturing.

Ione: Altitude 2,097 feet. Population 1910 census, 634. Mostly Ameri-

cans. Situated on the Pend Oreille river and the Idaho & Washington Northern railroad. Has gravity water system, electric lights, paved sidewalks, good streets, one church used by several denominations, one grade school, one high school, local and long distance telephone, and a weekly newspaper.

Metaline Falls: Altitude 2,450 feet. Estimated population 400. Started in 1910. Situated in the northern part of the county at the terminus of the Idaho & Washington Northern railroad in the valley of the Pend Oreille river. Main support is derived from the cement business, mining and lumbering. A million dollar cement plant shipping from 10 to 18 car loads daily. Town has cement sidewalks, good streets, a church, a \$20,000.00 school building, water system, electric lights, local and

long distance telephone lines and a weekly newspaper.

Newport: County seat, and main shipping point and trade center for the county. Population 1910, 1,199. Local estimate 1,800. Prettily situated at the junction of the Idaho & Washington Northern and the main line of the Great Northern railways overlooking the Pend Oreille river 60 feet below. Townsite is intersected by Idaho boundary line.

Lumber industry, agriculture, fruit raising and mining will assure future growth. It has all branches of business, including one lumber company with 20,000,000 feet capacity annually, also several wood working plants and one saw mill. There are five churches, a high school, several fraternal organizations, and one newspaper. Sidewalks are paved.

BIG BEND AND PALOUSE GROUP.

DOUGLAS COUNTY.

Douglas county, situated in the central part of the state, consists principally of a plateau of from 2,500 to 3,000 feet altitude.

Natural Features: The Columbia river, forming the north, west and south boundaries, causes some broken land back from the river for a few miles. About 60% of the surface is rolling, 30% level and 10% toward the west low mountain ranges. Only by getting on this plateau can its greatness be conceived, as nothing but the jagged rocks or a narrow strip of irrigated land can be seen from the Columbia river or the train window. On the top it is nearly all one magnificent wheat field extending to the horizon in nearly every direction. It is broken also by Moses Coulee, an old river bed extending in a northeasterly direction from the southern limit, while Grand Coulee forms its eastern boundary.

Population: The 1910 census accredits it with a population of 9,227 as against 4,926 in 1900, an increase of 87%. Much increase has taken place the past three years. The citizenship is mostly American, augmented by Scandinavian, Scotch, Irish, Danish and German.

Lands: There are approximately 1,143,680 acres of land, of which 79,160

acres are subject to homesteading and 95,502.74 acres are owned by the state, leaving under private ownership over 900,000 acres. Altogether there are practically 1,000,000 acres of tillable area, the remainder being adapted for stock grazing and kindred uses. Dry farming is practiced almost altogether, the precipitation averaging 13½ inches annually. Along the Columbia and in the coulees irrigation is found to be advantageous and very easy of accomplishment.

Soil: The soil is a volcanic ash of about five feet in depth, with clay and hardpan as sub-soil. It is very fertile and is admirably adapted to the production of grain, especially wheat.

Prices of Land: There is considerable land of excellent quality offered for sale. The unimproved is listed at from \$10.00 to \$25.00 per acre with the estimated cost of putting it under cultivation priced at from \$3.00 to \$5.00. The improved land, plowed, fenced and usually with some buildings, can be bought at from \$15.00 to \$60.00 for dry farming. Irrigable land set to trees, some bearing, may be purchased at \$200.00 and upward per acre. The highest priced land, of course, has orchards in full bearing and tributary to the famous Wenatchee valley.

Water: The only water available for

irrigation purposes is along the river and creeks. For domestic purposes wells are sunk and an abundance of excellent water is usually obtained at a reasonable depth.

Transportation and Markets: The Great Northern Railroad traverses the county from Mansfield in the north central portion south to the Columbia river, with a branch line to Waterville. Navigation by way of the river extends from Wenatchee in Chelan county, to Bridgeport in Douglas county, a distance of 60 miles and at times 40 miles further above Bridgeport. The various roads throughout the entire county are good at all seasons and regular stages (chiefly automobiles) are run between the main points.

The chief local markets are Mansfield, Tonkey, Withrow, Douglas, Waterville, and Alstown, also Wenatchee, Coulee City and Bridgeport.

Resources and Industries: This is naturally an agricultural county. Agricultural enterprises have and always will form the main source of revenue. Besides the wonderful grain fields, fruit culture, stock raising, dairying, and diversified farming are gradually becoming important. Wheat constitutes the main crop, the average annual yield being between one and two million bushels. Oats, barley and corn are cultivated in considerable quantities for ensilage uses. It is the intention in some portions of the county to specialize in stock raising and dairying.

Wages: The general work in this county is agricultural for which \$40.00 per month and board is the prevailing scale during farming seasons. There are located in the towns several industrial enterprises such as flouring mills and brick making plants, where men are employed at from twenty-five to fifty cents an hour. Near the Columbia river is a little timber maintaining several saw mills and box factories.

Social Conditions: Churches of all denominations as well as grade and high schools are to be found in the settled communities. Altogether there are 89 school districts. Telegraph and telephone lines extend to almost every point. The annual county fair is held at Waterville during the first week in October. A general exhibition of farm products and stock is shown.

CITIES, TOWNS AND VILLAGES.

The minor towns or villages, each forming a shipping center for active agricultural, horticultural and stock raising sections are: Beebe, Bonita, Bright, Douglas, Columbia River, Delrio, Buckingham, Leahy, St. Andrews, Tonkey, Withrow and Port Columbia. Bridgeport, on the Columbia, and Mansfield and Waterville on the Great Northern maintain municipal organizations. Altogether there are thirty post offices so distributed as to give satisfactory mail service to every part of the county.

Waterville: County seat. Altitude 2,640 feet. Population, 950 in 1910. Present estimate 1,200. Next to Americans, Germans predominate. It is the principal municipality in the county. It is located at the foot of Badger mountain in the heart of one of the richest districts of the Big Bend country and has communication with the rest of the world by the Columbia river five miles to the west, by a branch of the Great Northern railway and by auto stage. One of the seven federal land offices is located here. It has seven churches, a high school, a public library, two weekly newspapers, electric lights, and a telephone system. The county fair is held here from September 30th to October 4th. Fifty foot residence lots may be purchased at prices varying from \$25.00 to \$100.00, while improved farm lands ten miles away and admirably adapted to agriculture of all kinds may be bought for \$25.00 per acre.

Bridgeport: Altitude 927 feet. Population U. S. census, 431. Located in the Columbia river valley about 50 feet above the river's surface. The orchard industry has taken quite a hold and the town is expected to become a fruit shipping center. There is a hundred-barrel cooperative farmers' flouring mill here, also a saw mill, creamery building and a cement block factory. One church, a high school and a weekly newspaper are maintained. Transportation is by steamboat to Wenatchee, daily stage to Mansfield and a ferry across the river.

Mansfield: Estimated population about 300. Is one of the most important wheat shipping stations in the northwest and is located at the terminus of the Waterville branch of the Great Northern railway.

GRANT COUNTY.

This county lies near the central part of the state and is within the territory included in the "Big Bend."

Topography: Like the greater part of eastern Washington in its wild state it is a sage brush region. It is usually undulating or rolling with the main slope toward the south. There are many level plains, coulees and valleys throughout the county. About 25% is level plateau and bottom land, 65% rolling and 10% mountainous. In the eastern part is Moses Lake, the most important body of water in the county. To the north are low hills adapted for grain production. The Grand Coulee separating Grant from Douglas is thought to be the old bed of the Columbia river and presents wonderful natural phenomena as well as opportunities for farming by irrigation.

Population: The 1910 census accords a population of 8,698. As the county was not organized until 1909 no more figures are available for comparative purposes. Many indications, however, point to a steady growth since that enumeration. Native born Americans predominate in the ratio of about two to one of other nationalities.

Lands: The county contains 1,740,800 acres, of which 97,020 acres classified as prairie, farm, and grazing lands are open for entry by application at the Waterville office and 20,400 classified as irrigated, arid and mountainous may be obtained through the North Yakima office. The state owns 85,697 acres, leaving about 1,500,000 in private ownership. About 70% of the county is tillable and the remainder would be suitable for pasture only. Both dry farming and irrigation are practiced. The Quincy irrigation project, a bold scheme for irrigating 435,000 acres of level fertile land lying between the Badger mountains on the north and the Saddle mountains on the south, with water brought from Lake Wenatchee, is within the range of possibility and when accomplished will make this a garden spot of the world.

Soil: Most of the soil is a volcanic ash, varying in places to sandy loam mixed with ash. The heavier, darker soil is in the northern part while it shades into a gray in the central part. The rainfall is greatest in the north, irrigation being more necessary in the

remainder of the county. Soil varies in depth from 2 to 20 feet.

Prices of Land: Unimproved dry land without chance of water varies in price from \$5.00 to \$25.00 per acre. Where water for irrigation is available, the price will run from \$75.00 to \$250.00. Improved wheat lands range in value from \$25.00 to \$75.00 per acre. Irrigated lands planted to trees or alfalfa will cost from \$150.00 to \$400.00, depending on the age of the trees, nature of buildings, size of tract, etc. Cost of placing under cultivation is from \$5.00 to \$20.00 an acre. There are chances to lease on shares.

Industries and Crops: Wheat constitutes 75% of the total crop and will run close to 3,000,000 bushels annually. Other grains, especially oats, are produced in smaller quantities. Much alfalfa and fruit are raised on the irrigated lands. The chief fruit section is in the Moses Lake region, where an apparently inexhaustible supply of water seems to exist. Most of the apple trees in the county are from one to five years old. Corn has been found to do well and will tend toward the production of more hogs. Large bands of sheep are wintered in the county and ranged on the unimproved lands in springtime. Cattle are raised on the bottom lands and dairying and poultry raising are being promoted.

Water: Excellent water free from alkali is obtained for domestic purposes from springs and wells. Wells are from 40 to 400 feet deep. Besides wells, much water for irrigation is taken from lakes and storage reservoirs. Along the Columbia river at Priest Rapids and Coyote Rapids is immense but unestimated water power. There are large lakes in the county, namely: Moses Lake, in the southern portion; Crab Lake, on the eastern border and Alkali Lake on the northwestern line. Soap Lake and Blue Lake, possessed of wonderful healing qualities, lie directly north of Soap Lake station, which is located on the Great Northern main line.

Transportation: The main lines of the Great Northern and the Chicago, Milwaukee & St. Paul, and the Washington Central branch of the Connell-Northern branch of the Northern Pacific railroads reach all points of importance. This latter also connects

with a branch from Ritzville. The public highways, of which there are many in this county, are generally in good condition. Points located on the Columbia river have steamboat transportation.

Markets: Grant county finds a ready sale for all products at Seattle, Tacoma, and Spokane, where a good market price is always obtained. Wheat brings from 75 to 85 cents a bushel. Hay about \$15.00 per ton. The home demand for meat is not supplied.

Wages: Farm labor is paid according to the season, wages ranging about \$35.00 to \$40.00 a month with board. During the harvest time it runs from \$2.50 to \$5.00 per day. Plenty of work is obtainable in summer. For unskilled town work the wage is from \$1.75 to \$3.00 per day, and the skilled from \$3.50 to \$5.00 a day.

Social Conditions: Churches, school houses and post offices are maintained wherever there are people to benefit from them. Telegraph and telephone lines reach every settled portion of the county. County fairs are held at Ephrata and at Wilson Creek in September of each year. During the summer an interesting horse show takes place at Hartline. There are 29 post offices, 104 school districts and 9 high schools.

CITIES, TOWNS AND VILLAGES.

Coulee City: Altitude about 1,440 feet. Population (U. S. census) 276. Local estimate 500. The oldest town in the county and formerly known as "Grand Coulee Crossing." It is located in grand coulee at the only point where this remarkable geological attraction can be crossed. Numerous fine orchards are located near the town and gardening has been developed quite extensively. About 600,000 bushels of wheat are shipped through this point. It is supplied with three churches, a grade school, a \$12,000.00 high school, a newspaper, gravity water system, and all kinds of business houses. It is a freight division point and receives daily passenger and freight service from the Washington Central railroad.

Ephrata: County seat. Altitude 1,272 feet. Population 1910 census, 322. Local estimate 650. Surrounded by wheat, orchard and alfalfa land. Much fruit is just coming into bearing. Land is irrigated from pumping, which is quite successful. It is lo-

cated on the main line of the Great Northern railroad and is a general supply and shipping point. Wheat shipments amount to about 300,000 bushels annually. The town has four churches, one grade and one high school, telephone and telegraph service, and a weekly newspaper.

Quincy: Altitude 1,300 feet. Population 1910, 264. Local estimate 400. Located on the Columbia plains and the main line of the Great Northern railroad one-hundred-and-forty miles west of Spokane, and six miles from the Columbia river. About 100,000 bushels of wheat are shipped annually. Some stock, poultry, fruit and vegetables are raised. Some irrigation is carried on by pumping. City has three churches, a four-year high school, telegraph and telephone connections, a bank and a weekly newspaper.

Warden: Altitude 1,275 feet. Population (estimated) 250. Is near the southeast corner of the county on the main line of the Chicago, Milwaukee & St. Paul railroad. One hundred miles west of Spokane and about two hundred miles east of Seattle. The Connell Northern branch also runs through the town. It is the principal shipping point for the southern end of the county. Wheat shipment amounts to about 200,000 bushels. The town has two churches, a high school, a waterworks system, telegraph and telephone lines and a weekly newspaper.

Hartline: A small wheat center in the northern part of the county in Paradise Valley. Wheat shipments amount to about 400,000 bushels annually. It has a large flouring mill and grain elevator, two churches and good school facilities. One weekly newspaper is published.

Krupp: Population U. S. census, 293. A wheat shipping center located in the extreme eastern part of the county in Crab Creek Canyon. Wheat shipments amount to about 500,000 bushels annually. A stream of water running through town is never dry. Oats, barley, rye, speltz, root crops, tomatoes, melons, etc., do well here; also fruit raising and dairying. There are several warehouses, one bank, school, church facilities, and a weekly newspaper.

Wilson Creek: Population 1910, 405. A division point on the main line of the Great Northern railway at the confluence of Wilson creek and

Crab creek canyons, 100 miles west of Spokane. About 400,000 bushels of wheat, besides other grain, is marketed at Wilson Creek annually. To see the limitless grain fields one should go just beyond the perpendicular walls that seem to surround the town. It has an electric light plant and a complete system of waterworks, obtaining pure water from an inexhaustible well. Churches, good schools, and one weekly newspaper are maintained.

Soap Lake: Altitude 1,280 feet. Estimated population 250 in winter

and 650 in summer. A summer and health resort located on a lake of same name possessed of curative qualities for skin diseases, rheumatism, stomach and kidney troubles, etc. Fruit lands are close by. There are four sanitariums, two salt plants and one factory for Soap Lake products. The Great Northern railway station is just two miles away. There are also interesting geological features near by.

Other trading centers are Beverly, Winchester, Stratford, Adrian, Neppel, Moses Lake, Bend, Lowgap, Ruff, Smyrna, Allouez, Bacon and Trinidad.

FRANKLIN COUNTY.

The county is in the southeastern part of the state, and all parts, excepting the southern, partake more of the nature of the Big Bend country, with which it is grouped in this publication.

Natural Features: At its southernmost point is the confluence of the Columbia and Snake rivers, the Columbia forming a portion of the southern and all of the western boundary and the Snake completing the southern and nearly all of the eastern line. The topography is slightly rolling, rising gradually from the southern to the northern limit by a series of benches. The county assessor estimates about 50% rolling and the rest level. There are also a number of coulees in the county containing much land irrigated by the small streams flowing through.

Population: In 1900 only 486 people were in this county; in 1910 the number had increased to 5,153, showing an increase of 960.3% for the decade. Since 1910 its population has continued to grow. Native born Americans predominate, with Germans, Scandinavians, English and Greeks making up the remainder.

Lands: The total area covers approximately 771,840 acres, of which 37,818 acres are unappropriated and unreserved government lands, described as prairie and grazing and without timber. In addition there are state lands amounting to about 38,365 acres which leaves a balance in private ownership of over 600,000 acres. It is estimated that the total tillable area of the county is 500,000 acres and that the remainder can be profitably utilized for pasturage. All unimproved lands are covered with sagebrush. About 11,000 acres are now under pipe line of the Pasco Reclamation Company.

Soil and Climate: The soil is chiefly volcanic ash ranging in depth from two to forty feet and adaptable to wheat raising, which is the main crop in the northern part of county. In the coulees, where the land is overflowed at certain seasons, alfalfa thrives luxuriantly and four crops are harvested during the year. Land is also well adapted to other cereals as well as vegetables. All that is necessary to make the southern part of the county one of the most productive areas is the carrying out of the Palouse project of irrigation. Where irrigation now obtains, four crops of alfalfa have been harvested in a single year. The rainfall averages an annual precipitation of 15 inches and the winters are very mild and short.

Prices of Land: Prices of lands vary considerably. It is reported that there is a large amount of unimproved land which may be had at from \$5.00 to \$10.00 an acre, with the cost of putting under cultivation estimated at between \$5.00 and \$6.00. Improved lands, with good well and farm buildings, is being offered at from \$10.00 to \$35.00. Near Pasco unimproved irrigable land with water right can be had for \$150.00 to \$300.00 per acre. An ordinary family would require from 160 to 320 acres of dry farming land and the usual small area of irrigable land. Opportunities exist for leasing improved lands on a basis of about one-fourth of crop in warehouse.

Resources and Industries: It is essentially a wheat growing district and, although other grains, fruit, vegetables, etc., can be raised with some measure of success, thus far wheat has been the staple product. The comple-

tion of the Palouse project, for the survey of which the last legislature made a liberal appropriation, will put 100,000 acres of additional land under water. The U. S. government and the State of Washington are at present arranging for the initial work on this.

Water: The water generally used for domestic purposes is taken from wells. In the coulees water is reached at a depth of from 40 to 100 feet, gasoline engines being used for pumping purposes. The Columbia and Snake rivers could both be made to yield a considerable horse power for industrial uses.

Transportation and Markets: Water transportation is enjoyed on both the Columbia and the Snake rivers. The Spokane, Portland & Seattle, the Northern Pacific, the Connell Northern and the Oregon-Washington Railroad & Navigation railways intersect the county from different angles, bringing all portions within easy reach of railroad transportation. Franklin county wheat as well as its other products, always finds a ready market. The prices are regulated by those offered at Seattle and Tacoma less the cost of freight to those shipping points.

Wages: Farm work commands from \$1.00 to \$5.00 a day with board, the higher prices being paid during harvest season. Without board \$2.00 and upward a day is the rule. Besides plenty of farm labor, there is considerable railroad work in this county, the Northern Pacific shops and round houses being maintained at Pasco and two railroads having terminals at Connell.

Social Conditions: The various communities, although at times far apart, supply themselves with suitable school facilities and churches. Ample wire, rail and postal connections keep them in touch with the leading centers of their own county and of the state. There are 37 school districts and 5 high schools.

CITIES, TOWNS AND VILLAGES.

Only eight towns have post offices. They are: Connell, Eltopia, Kahlottus, Mesa, Page, Pasco, Ringold, and Snake River. The principal of these are Connell and Pasco.

Connell: Altitude 838 feet. Incorporated. Estimated population 500. Nationalities are chiefly Americans, Germans, Scandinavians and Irish. The town is reached by the Northern Pacific, Connell Northern, and Oregon-Washington railways, and has become the central distributing point for the whole northern portion of the county. Improved land in the neighborhood may be bought for \$15.00 to \$25.00 an acre and unimproved at \$5.00 to \$10.00 an acre. Wheat and other grains, early vegetables and stock are successfully produced. Hog raising promises to become a very profitable business. Town has three churches, a \$15,000.00 brick school house and weekly newspaper. Business buildings are brick and concrete. Two machine shops, in which a "weeder" among other valuable machinery is made, are maintained.

Pasco: County seat. Altitude 370 feet. Population 1900, 254; 1910, 2,083. Increase 803%. Present estimate 4,000. Located in the Columbia river basin at the mouth of the Snake river, it is the chief division point for the Northern Pacific and the Spokane, Portland & Seattle railroads. The Oregon-Washington Railroad & Navigation railroad passes just on the other side of the river. Extensive yards and roundhouse are here, with a large monthly pay roll. The Columbia and Snake rivers furnish steamboat service three ways daily. Other industries include planing mill, ice cream manufacturing establishments, concrete and brick factory, sheet metal and iron works. One of its biggest assets consists in its strategical location for easy and quick transportation at minimum cost. There are seven churches, two grade schools and one high school, public library, one private and two public parks, and two newspapers.

ADAMS COUNTY.

Adams county is usually of a rolling nature like the other counties in the vicinity. About 10% of it is level. The county is broken occasionally by coulees or draws which bring some rock to the surface and at the same time produce some lower land which can be irrigated from springs or lakes. The general slope is toward the

south, lying as it does between Lincoln county still higher and Franklin which reaches down to the Columbia river. On the higher crests one can see wheat fields extending almost to the horizon in every direction. Land in its natural state was covered with sage brush.

Population: The census of 1910

enumerates a population of 10,920, showing the ratio of increase between 1900 and 1910 to have been approximately 150%. Very little increase has taken place since. A Russian settlement west of Ritzville is making special success.

Lands: The total area of the county is 1,223,680 acres out of which the United States held on July 1st, 1913, surveyed lands amounting to 18,917 acres, divided as follows in classification: 10,611 acres, prairie, farming and grazing, and 8,306 acres of arid lands valuable for fruit and grain. The state school and granted lands, on September 30th, 1912, amounted to 56,689 acres, thereby showing the balance of land in the county held by private owners to be over 1,000,000 acres. Fully 80% of the county is tillable, while the remainder of 20% is said to be excellent for pasturage.

Soil: The soil in all parts is a volcanic ash, ranging in depth from one to sixty feet and is ideal for the production of grains and for stock raising. Towards the north and east it becomes much heavier. The climate is mild and the rainfall is usually sufficient for successful farming. About 15 inches fall at Ritzville and about 12 at Lind.

Prices of Land: Unimproved land may be purchased at from \$8.00 to \$15.00 an acre and on easy terms, a small payment down and the balance in yearly installments. Improved lands sell for from \$20.00 to \$50.00 per acre, the price being governed by the extent of improvements and distance from markets. Close to Ritzville prices for best land run still higher. Opportunities for leasing during a term of years on the basis of one-third of crop to owner may be found. Much land is farmed this way.

Resources and Industries: Rich agricultural land is the main resource although much undeveloped water power exists at the southern edge where flows the Palouse river through Palouse Canyon. The main crop is wheat of which 3,000,000 bushels are produced annually, placing it among the five leading wheat producing counties in the state. Some stock is still raised, while effort is being made to do more dairying and raise more hogs, to which industries the county seems quite adaptable. Near Ritzville a project exists to water several thousand acres from neighboring lakes.

Water: A supply of water for irrigation uses is available along the small

streams and creeks flowing through the county. However, very little irrigation is practiced except for fruit and alfalfa production and in the coulees or canyons. Springs and wells are used for all domestic purposes and an adequate supply of good water can usually be obtained.

Transportation: Railroad transportation is unusually good. The Northern Pacific operates 97 miles, the Chicago, Milwaukee & St. Paul 123 miles, the Spokane, Portland & Seattle 53 miles and the Oregon Railroad & Navigation in the southeastern corner of the county 10 miles, a total of 284 miles of railroad. The big "Central Washington" highway, a primary road now under construction by the state, crosses the county from southwest to northeast. County roads extend in every direction and are usually passable the entire year. There is no trouble disposing of the products, especially wheat, the staple article, which is shipped to the markets of the world.

Wages: The general wages paid are: warehousemen, \$3.00 a day; ranch work, \$35.00 to \$40.00 a month, with board; harvest hands, \$2.00 to \$3.50 a day, with board. The working season comprises the spring, summer and fall, very little manual labor being found during the winter months, except in flouring mills.

CITIES, TOWNS AND VILLAGES.

Each railroad, with its branches, serves many small centers, every one of which plays its own important part as a shipping or trading point. These may be located from the map. The more important cities and towns are as follows:

Ritzville: County seat. Altitude 1,820 feet. Population 1910, 1,859. Local estimate 2,200. Many Germans and Russians as well as Americans. Formerly most important primary wheat shipping center in the world and still very important in that regard. Located in the midst of a slightly undulating section of beautiful prairie country, rich and fertile and particularly adapted to wheat and potatoes, but produces other cereals well. Good fruit is also raised and diversified farming would be successful. A large flouring mill of 450 barrels per day capacity, runs day and night. There is also an ice manufacturing plant and a creamery is just starting. Bank clearings for 1912 were \$3,561,600.00. It has ten churches, one high school, two grade schools, a Carnegie library of 5-

000 volumes, telephone system, two weekly newspapers (one being in German), city owned water, electric lights, and volunteer fire department. The county fair or wheat carnival is held here. Land in the vicinity may be bought for from \$30.00 to \$60.00 per acre. An active demand for farm labor usually exists in surrounding country. Some land is just being placed under irrigation.

Lind: Altitude 1,360 feet. Population 1910, 831. Many Russians and Germans besides Americans. The second town in size and importance in the county, located near the geographical center at the junction of two transcontinental railways, the Chicago, Milwaukee & St. Paul and the Northern Pacific. About 400,000 bushels of wheat are shipped annually. There are three churches, a high school, newspaper, flour mill, volunteer fire department, electric lights and good water supply.

Othello: Altitude 1,050 feet. Estimated population 600. Located in the "Pan Handle" on the Chicago, Milwaukee & St. Paul railroad, 192 miles east of Seattle. It is a rapidly growing town and railroad point less than five years old but boasts many business houses, a water system, two churches, good schools, town park, one weekly newspaper and volunteer fire department.

A rich wheat country surrounds it and a good local market exists for all produce. Land in vicinity is \$10.00 to \$20.00 per acre.

Washtucna: Population 1910, 300. Local estimate 400. A rapidly growing town in southern part of county, located on the Oregon Railroad & Navigation and Spokane, Portland & Seattle railroads and surrounded by a wheat country. Many bushels of wheat finds its way to the markets of the world through this point. Many sheep and other live stock are raised in the vicinity, also some fruit. The town has a weekly paper, a high school and two churches.

Hatton: Population 1910, 161. An important wheat shipping town located on the Northern Pacific railway in the southwestern part of the county. City has church and school facilities and a water system. Over 200,000 bushels of wheat are shipped annually.

Cunningham: Altitude 1,139 feet. Estimated population 150. A wheat shipping center located in the south central part of the county, on the Northern Pacific railway, 100 miles southwest of Spokane. An experiment farm of over 500 acres is maintained near this town.

Benge, Schrag, Marcellus and Keystone are other important shipping points and trading centers.

LINCOLN COUNTY.

This county is one of the great wheat producing sections of the state, a part of it lying in what is known as the "Big Bend" country.

Topography: The topography is usually rolling with occasional coulees, or canyons, extending in different directions. There is no timber excepting a few small pines at the northern and eastern edges. The general slope is from the ridge along the northern half toward the south. The topography shows 60% rolling, 20% level and 20% hilly.

Population: The United States census reports a population of 17,539 for 1910 as against 11,969 in 1900. 14,779 were native born Americans with Germans, Swedes and Canadians following in the order named. Like all wheat sections the larger part of this population is found in the cities and towns. The farms here are usually among the largest in the state.

Lands: The total area comprises 1,473,280 acres out of which there were

held by the United States government (Report of July 1st, 1913) 36,010 acres, classified as farming and grazing lands; the state held (Report of September 30, 1912) 56,449.70 as state school and granted lands, leaving the balance of over 1,300,000 acres in the hands of private owners. Approximately all of Lincoln county is tillable. The very small percentage considered as non-tillable is used for the pasturing of horses and cattle. The climatic conditions are most conducive to crop production. The annual precipitation averages about 17 inches.

Soil: The soil is very fertile. It is of volcanic origin, being decomposed basalt and volcanic ash. Under the microscope each atom resolves itself into a perfect kernel of soil, covered by a moisture-preserving shell, strong and enduring. The depth varies, being greater on the rolling lands and less on the level. The heaviest soil is in the northern half.

Prices of Land: The non-tillable

land, suitable for pasture only, may be purchased at from \$3.00 to \$10.00 an acre. Improved land, "wheat land," is worth from \$20.00 to \$60.00 an acre; "meadow land" at from \$20.00 to \$75.00 and "orchard land" at from \$50.00 to \$800.00 an acre. Leases may be had on state lands in Lincoln county for \$1.50 to \$2.20 an acre. Private lands are often leased on a basis of one-third of the crop delivered at warehouse.

Resources and Industries: Wheat raising is the main industry of the farms with flour manufacturing of considerable importance in the leading towns. The annual yield of wheat amounts to about 8,000,000 bushels. The quality of this is claimed by millers to be the best in the Pacific states. There are some orchards by the Columbia river and a few other smaller streams. Some stock raising is carried on while a tendency exists to strengthen the dairying industry which presents good possibilities. Other grains, including oats and barley, are raised to some extent, but are used chiefly for feed. There are some undeveloped mining projects by the river.

Water: There are innumerable small streams, creeks and lakes in every portion of the county besides the Columbia and Spokane rivers on the northern boundary. Very little irrigation is practised except in the orchard lands near the Columbia river and in a few other low places. The water is taken from springs and creeks near by. Water for domestic uses is taken from wells 25 to 200 feet in depth. The supply is inexhaustible and of excellent quality.

Water Power: At the present time the Washington Water Power Company have a power plant in operation on the Spokane river developing an energy of 27,000 horsepower. It is used for the generation of electricity and is distributed throughout the Big Bend country by high tension lines. This is being utilized for lighting and power purposes in the towns and on the farms.

Transportation: The Northern Pacific and the Great Northern cross the county from east to west while the Chicago, Milwaukee & St. Paul, the Oregon-Washington Railroad & Navigation and the Northern Pacific run just across the southeastern corner. A branch line extends from Davenport to Dennys, and another branch is building from Bluestem to Peach and Miles. Regular stages supplement the train

service between Davenport and Spokane and connect with the more important centers off the railroad. The public highways are good the year round. The state road known as the Sunset Highway, connecting Seattle with Spokane, runs directly through Lincoln county from west to east, touching at Wilbur, Davenport and Reardan.

Wages: There is very little work to be had in the farming districts aside from the regular farm labor for which the ordinary wage paid, including board, is from \$30.00 to \$35.00 a month. The work consists of the various details attendant upon wheat production from seed time to hauling to warehouse. At harvest time the regular wage is \$2.50 to \$4.00 a day; when engineers get \$5.00 and separator-men \$5.00 to \$8.00 a day. Unskilled labor may find employment at the flour mills and warehouses with no fixed scale of wages. Skilled labor, such as carpenters, blacksmiths, etc., are paid from \$3.00 to \$5.00 a day.

Markets: All of the products of this county find a ready market at a fair price. Wheat, the principal product, being sold chiefly to the local flour manufacturing plants. The other products are shipped to the larger markets through Davenport, Reardan, Wilbur, Almira, Sprague, Harrington and Odessa.

Social Conditions: Nearly all the advantages of city life are enjoyed by actual ranchers whose general prosperity is indicated by the increasing number of automobiles put into use. Free mail delivery, electric lights and telephones are common. Country school facilities are of the best and a deep interest is taken in educational matters. Churches of the leading denominations may be found. There are 137 school districts and 10 high schools.

CITIES, TOWNS AND VILLAGES.

Lincoln county has some twenty-nine established post offices which, with 18 rural free delivery routes distribute mail matter to the remote portions of the county. Most of these may be easily located from the map.

Davenport: County seat. Altitude 2,465 feet. Population 1910, 1,229. Pleasantly situated in the northwest portion of the county 47 miles from Spokane on the C. W. R. R. which traverses the county from east to west. It is an important wheat shipping center, being located in the midst of a

rich wheat producing section with some lands suitable for orchards. It has two banks, eight churches, grade and high schools, two newspapers, volunteer fire department, telephone system, an \$80,000.00 court house, numerous social clubs and fraternal orders. The Lincoln county fair is held here each year during the middle of October.

Lincoln: Not incorporated. Formerly called "Miles." Situated in the midst of a rich fruit and grain country at the confluence of the Spokane and Columbia rivers. Immense water power is near and will in time attract manufacturing. Stage connects with Davenport. A railroad is now being built.

Odessa: Altitude 1,560 feet. Population U. S. census 1910, 885. Estimated 900. Mostly American, with some Germans, German-Russians and Bohemians. Located on the main line of the Great Northern railway, 75 miles west of Spokane in the midst of a great farming district, constituting a portion of the famous "Big Bend" country. Besides wheat, corn, fruit and vegetables, hogs and sheep are successfully raised. It is also an important primary wheat shipping market. It has a flouring mill of 400-barrel daily capacity, six churches, grade and high school, newspaper, fraternal organizations, play grounds and driving park, good water system and volunteer fire department. Business buildings are mainly brick.

Sprague: Altitude 1,900 feet. Population 1910, 1,110, American, Irish, German, and Italian. Situated in the southeastern part of the county on the main line of the Northern Pacific railroad, 41 miles west of Spokane. It is an important wheat shipping and flour manufacturing point, and is supplied with all the modern social and business conveniences, including electric lighting, municipal water plant, one bank, grade and high school, private academy, six churches, hospital, newspaper, circulating library, substantial business blocks, and attractive residences. The surrounding country is rolling prairie, some of which is admirably adapted to orchard purposes and all of it to wheat, other cereals, gardening, small fruits and live stock.

Wilbur: Altitude 2,200 feet. Population 1910, 757; local estimate 850. About midway between Creston and Almira on the Washington Central

branch of the Northern Pacific railroad in the northern portion of the county. It is of importance as a shipping point and trading center for the wheat industry. There are six churches, a grade and high school, electric lights, municipal water system, a free library, a newspaper, volunteer fire department, a beautiful 160 acre park and a flouring mill of 600 barrel daily capacity. Two fairs are held annually in October.

Long Lake: Altitude 1,400 feet. Construction camp on Spokane river building hydro-electric plant. Will probably develop into a permanent town. Two trains a week and daily stage to Reardan and Spokane are the transportation facilities.

Reardan: Altitude 2,500 feet. Population 1910, 527. Local estimate 600. On the Central Washington railroad, 25 miles from Spokane, in the midst of an agricultural section devoted chiefly to wheat. Auto stages supplement train service. It has a 400 barrel flour mill, electric lights, five churches, one grade school, high school and daily newspaper. An annual mule day is held about the middle of June.

Harrington: Altitude 1,900 feet. Population 1910, 661. Fifty-one miles west of Spokane. Located on the main line of the Great Northern in the midst of a wheat producing section. It has a number of large grain houses and a flouring mill; also electric lights, municipal water system, telephone system, one newspaper and a high school.

Almira: Altitude 1,985 feet. Population 1910, 368. Estimated 450. Situated in the western part of the county on the Washington Central (branch of the Northern Pacific). Wheat and stock raising are principal industries. It is the annual shipping point for many bushels of wheat, some of which, however, comes from Grant county on the west. There are two churches, a grade and high school with a fine library in connection, newspaper, artesian wells, and numerous business enterprises.

Creston: Altitude 2,444 feet. Population 1910, 308. Local estimate 400. Situated about midway between Almira and Davenport, on the Washington Central railroad. The city lies in the center of the "Brent's country," one of the rich farming sections of Lincoln county. Orchard Valley, or the "Peach country," along Hawk creek, contributes to its business activity. It

has a flour mill, one newspaper, five churches, and a high school.

Plum and Peach are important fruit raising centers on the south side of the Columbia river. Transportation is

at present by stage and river, but a railroad is now being built to Peach.

Downs, Govan, Waukon, Hellgate, Fishtrap, Egypt, Rocklyn, Miles and Bluestem are other important trading centers.

SPOKANE COUNTY.

Spokane is the second county in population and wealth in the state; the leading county east of the Cascades; and also of a larger area known as the Inland Empire, which includes much of Eastern Washington, Northern Idaho, Northeastern Oregon and Southeastern British Columbia. It lies about midway between the British Columbia line on the north and the Oregon state line on the south.

Topography: Its surface is generally rolling prairie, although rather hilly in the southeast and central west. The central and northwestern portion is rolling timber land with 50 per cent of the timber removed, while the northeastern portion is mountainous and covered with brush and timber. The assessor estimates 85 per cent of the county rolling, 10 per cent mountainous and 5 per cent level. The general altitude, outside of the mountain tops, is from about 2,000 to 2,600 feet. The entire section is studded with beautiful lakes. The famous Spokane river, having its source in Lake Coeur d'Alene, Idaho, flows through the county from east to west, emptying into the Columbia at Lincoln. Many smaller rivers and creeks, the outlets of various lakes in this and neighboring counties, are tributary and afford excellent drainage and untold water power, while hastening to join the Spokane.

Population: In this respect the county ranks second in the state. In 1910 there were 139,404, an increase of 142 per cent over the figures for 1900; 104,402 were living in the city of Spokane. More than 19 per cent, or 26,828, of the whole were foreign-born white, of which 4,944 were Canadians, 2,453 English, 4,150 Germans, 1,309 Irish, 1,772 Italians, 2,279 Norwegians, and 3,990 Swedes. Nearly all other European countries were represented. Indications are that the growth of the past three years has been normal.

Lands: The total area includes 1,123,840 acres of land, of which 31,083 acres are state land and only 514 unreserved government land. In 1910 there were 3,947 farms, containing

361,958 acres of improved land and 320,372 acres unimproved, making the average size of each farm 172.9 acres. At present about 1,000,000 acres are assessable, about 100,000 acres of which are in timber. It is estimated that fully 75 per cent of the entire county is tillable, while the balance is good for pasturage.

Soil: The soil varies in different localities. The southeastern part is a heavy loam, typical of the Palouse country. The northern part is somewhat lighter, of the volcanic ash variety. In the northwest is a sandy loam, while the Spokane valley contains a black gravelly loam underlaid with gravel and well adapted to fruit raising under irrigation. In other parts stock raising is a satisfactory enterprise. Here and there are also peat beds that make splendid meadows.

Climate: A very equable climate is enjoyed in this section, due largely to the prevailing winds from the southwest, which come from off the warm Japan stream in the Pacific ocean. Sudden, violent changes of temperature seldom occur. The precipitation at Spokane city for 1912 was 18.21 inches, including 21.7 inches of snow-fall. The death rate was only 8.47 per 1,000. The growing season is about 181 days. Temperature seldom goes above 97 degrees and down to zero about four times in the year. During a period of thirty years there were nine winters without zero weather. The normal temperature reported by the United States Weather Bureau at Spokane for each month of the year is as follows:

January	27 degrees
February	30 degrees
March	39 degrees
April	48 degrees
May	56 degrees
June	63 degrees
July	69 degrees
August	68 degrees
September	59 degrees
October	47 degrees
November	37 degrees
December	31 degrees

Prices of Land: First-class Palouse land in the southern part of county can be bought at from \$75.00 to \$100.00 an acre, including the usual farm improvements. Very little of this, however, is for sale. Unimproved land in this section is worth from \$40.00 to \$50.00 an acre. Cost of placing under cultivation is from \$3.00 to \$5.00 an acre. In the northern and western parts, fringed with light timber, unimproved farm land may be bought as low as \$25.00 an acre and grazing land for about \$10.00. When nicely improved the price will run as high as \$100.00. Irrigated lands, including water rights and improvements, will cost from \$250.00 to \$600.00. The higher prices contemplate income producing orchards.

Resources and Industries: The principal resources of this county consist of its extensive fertile lands, its timber aggregating about 1,000,000,000 feet, its vast water power, and its suitable locations for commercial and manufacturing enterprises. The mining opportunities in the county itself are meager, but the valuable mining properties of the Coeur d'Alene and British Columbia are tributary and affect the development of the county materially. Millions of dollars are annually taken from these mines and a large part of it goes through the city of Spokane.

The greatest apple section is in the Spokane valley, extending for miles east of Spokane and on into Idaho. This valley is several miles wide and contains about 40,000 acres in Spokane county which produces many carloads of fruit annually. There are altogether about 35,000 acres of land devoted to apple culture and containing upwards of 2,000,000 trees.

Dairying is becoming very important. In the vicinity are a number of the largest commercial dairies in the state, and several world's champion cows are owned by dairymen of this section.

Manufacturing is made easy by the vast water power of the vicinity, which is estimated at about 240,000 horsepower. Much of this is harnessed up by the Washington Water Power Company, which supplies power for all purposes. Most of the present manufacturing is carried on near Spokane city. The total appraised value of all property is \$290,661,977.00.

Transportation: The county is literally cut up with railroads and inter-

urban electric lines. Almost every community within its limits has easy access to transcontinental roads. In total railroad mileage it ranks third in the state, having over 479 miles of trackage, representing all the lines that center in Spokane and described with that city.

Excellent highways extend in every direction. In the central part three of the state's primary highways meet. The Sunset crosses from west to east, connecting with what is now known as Apple Way, a wonderful road, extending for many miles in a straight line east from Spokane; the Central Washington leads from the southwest to the center, and the Inland Empire right through the county from the south to the north. These have connections with all secondary and other state and county roads.

Markets: Spokane city is the principal distributing point and supply station for the entire Inland Empire. The transportation facilities for this county, however, are so nearly perfect that the markets for its products might well be designated as "the markets of the world." A fair value is received for the varied productions of the county and no particular difficulty is experienced in disposing of them. Large quantities of dairy, poultry and meat products are shipped in every year to supply the local demand.

Wages: The wages paid for general farm work range from \$30.00 to \$40.00 a month, with board, or from \$2.00 to \$3.00 a day without board. Unskilled labor receives from \$2.00 to \$3.00 and the skilled artisan is paid from \$4.50 to \$6.00, according to the class of work. During the farming season work is plentiful. Factory work, highway and railroad building, etc., offer other opportunities for laborers.

Social Conditions: The electric interurbans have an effective influence upon the social development of this region, intercourse between the sections being direct and rapid, while Spokane city can be reached in a little over an hour from the most distant parts of the county. Satisfactory telephone, telegraph and mail service are enjoyed. No effort is spared to maintain schools of highest standard, attractive churches and beautiful homes. There are 47 postoffices, 36 rural routes, 162 school districts and 37 high schools in the county.

CITIES, TOWNS AND VILLAGES.

Spokane: County seat. Altitude 1,943 feet. Population 1910, 104,402; 1900, 36,848; increase, 183.3 per cent. United States estimate, July, 1912, 120,994. It is the second city in size and importance in the state and the financial, commercial and industrial center of the "Inland Empire," already described. Its total area is 39¼ square miles, sloping toward the Spokane river on both sides of that stream, which has one of the greatest falls in the world right in the heart of the business district. The north side is chiefly a magnificent plateau connecting with similar country extending for miles northward. On the south are pine-clad hills, with many a magnificent dwelling costing upwards of \$100,000 and overlooking the valley below. A parking and boulevard system unsurpassed is outlined. It includes 52 parks, containing 2,056 acres, or an acre for every 58 people. City is backed by the four leading industries of the world, agriculture, lumbering, mining and manufacturing. As many as 215 factories, employing 10,053 persons, with an annual payroll of \$8,104,174.00, are maintained. These include two large meat packing plants, twenty sash and door, shingle and box factories; twenty metal working concerns; thirteen brick, clay and cement works; five establishments manufacturing mattresses, shirts and pennants; seven manufacturing paints, carriages and autos; eight making candy, crackers and biscuits; nine bakeries and flour mills, and many others representing nearly every conceivable line of enterprise.

It is one of the most important railroad centers west of the Missouri river. The main lines entering are the Northern Pacific, Great Northern, Chicago, Milwaukee & St. Paul, Spokane, Portland & Seattle and Oregon-Washington Railroad & Navigation Co., while the Chicago, Burlington & Quincy, the Spokane Falls & Northern, the Spokane International and the Chicago & Northwestern enter over tracks of these companies. It is also the hub of an electric interurban system of 213 miles, reaching into Southeastern Washington and Northern Idaho. Within its corporate limits are 157 miles of street car railway and 60 miles of paved streets. A number of the richest mines in the world are tributary and produce millions of dollars annually. The output

is expected to increase for years to come. Bank clearings for 1912 were \$225,436,034.00, or five times the amount for 1902. There are about 90 churches, representing all denominations, two large high schools with 2,372 students, 33 grade schools and 13 private schools, including Gonzaga College, Spokane College, Spokane University, and a number of commercial schools. School census for 1913 gives 21,517 of school age. The public library has 56,322 volumes. There are four daily newspapers, eight weeklies, two monthlies, two semi-monthlies and one twice-a-week. City maintains a free employment bureau. Drinking water is unsurpassed. Two great fairs are held annually, viz., Spokane Interstate Fair in September, and the National Apple Show in November.

Hillyard: Population 1910, 3,276; local estimate, 3,500. Area about one square mile. Located on the Great Northern railway, five miles from center of Spokane, by which it is almost surrounded. An electric line also connects it with that city. Here are maintained the Great Northern shops, which employ many men and form the mainstay of the city. It has seven churches, high school, three grade schools and one newspaper. Although separately incorporated, it is really a suburb of Spokane and its future growth will undoubtedly depend on the development of that great city.

Cheney: Altitude 2,400 feet. Population, 1910 census, 1,207; local estimate, 1,600. Situated on a gently sloping hillside about 16 miles by rail southwest of Spokane city, with which it is closely connected by an interurban electric, the main lines of the N. P., O-W. R. & N., and S. P. & S. railways and by the Washington Central branch of the N. P. It is primarily an educational center, one of the three state normals being located here. A new modern building, to cost \$300,000, is being constructed. It has a flour mill of 350-barrel capacity, a 2,500 capacity brick yard, a rotary rod and weeder factory, two banks, four churches, a high school, a weekly paper, electric lights, telephone communication, good water and a volunteer fire department. Several exhibit fairs of local interest are held during the year. Country is wooded to the east and south, while north and west is much wheat. Dairying is increasing in importance.

Medical Lake: Altitude 2,392 feet. Population 1910, 1,730 (including in-

mates of state hospital). Local estimate for city limits alone, 900. The town is prettily situated, 12 miles southwest of Spokane, on shores of Medical lake, said to have medicinal qualities for curing rheumatism. Several other attractive lakes are nearby. A granite stone quarry employing 30 men has recently been opened. Just across the lake is located the state's Eastern Hospital for the Insane and the Institution for the Feeble-Minded. City has five churches, a high school and volunteer fire department. Water is obtained from state reservoir. The Washington Central branch of the Northern Pacific gives railroad communication and an electric interurban connects with Spokane city.

Deer Park: Population 1910, 875. Local estimate 1,500. Located on the Great Northern Railway 25 miles north of Spokane. Here are the Arcadia orchard tracts, representing probably one of the largest orchards in the world under one management. In the mountains not far away is some mining. Lumbering also is important. City has three churches, a brick high school, two grade schools, a public park, electric lights and weekly newspaper. An agricultural fair is held each year in September.

Rockford: Altitude 2,665 feet. Population 1910, 663. Local estimate 850. On the Oregon-Washington Railroad & Navigation railroad in the southeastern part of county and in a coulee formed at the junction of Rock and Mica creeks. Formerly covered with timber, the region is one of well improved farms, yielding profitable crops of fruit, grain, alfalfa, clover and other grasses. The recent opening of the Coeur d'Alene Indian Reservation is having a healthy influence on its growth. There are six churches, a high school, a public park, weekly newspaper, good water system, electric lights and volunteer fire department.

Spangle: Altitude 2,430 feet. Population, local estimate 450. A pretty town situated at the gateway to the Palouse and offering comfortable homes to retired farmers who own the surrounding lands devoted chiefly to grain production. There are two churches, a high school, electric lights and volunteer fire department.

Fairfield: Altitude 2,539 feet. Population, local estimate 350. An agricultural center on a rolling prairie, 33 miles by the Oregon-Washington Railroad & Navigation railroad south of Spokane and 20 miles west of Lakes Chatcolet and Coeur d'Alene. Fruit and alfalfa do well. There are two churches, a high school, German private school, public library, a park and newspaper.

Meadow Lake: Altitude 2,300 feet. A future fruit raising center on the Northern Pacific railroad, also served by the Washington Water Power Interurban. Fruit is not yet in bearing. Town has church, school and electric lights.

Opportunity: A township organization in the Spokane valley and near the city of Spokane. It contains about 17 square miles of territory and five business settlements or villages. Total population is estimated at 1,500, and taxable valuation at nearly \$2,000,000. The tracts are usually 5 to 10 acres in size and devoted chiefly to fruit culture, practically all under irrigation. There are five churches, a high school, and five grade schools in the township. All parts have water under pressure and electric lights. Within the township are also a number of manufacturing concerns.

Latah: Altitude 2,490 feet. A farming town with 160 acres within its corporate limits and located on the Oregon-Washington Railroad & Navigation railroad. A rolling prairie surrounds it. A four-year high school is maintained. Lighting is by electricity.

Mead: Altitude 1,700 feet. A fruit and grain farming community of about 300 people. Located on the Great Northern and Spokane Falls & Northern railway. Much development is taking place. Timber cutting and brick making are important industries. It has one church and a two-year high school.

Milan: A farming community on the Great Northern railroad. Lumbering and stock raising are also carried on. A high school is maintained.

Mt. Hope, Deep Creek, Denison, Moab, Buckeye, Chester, Marshall, Nine Mile Falls, Sharon, Spokane, Bridge and Waverly are other important farming centers and distributing points.

WHITMAN COUNTY.

This county borders on the Idaho line and is about equidistant between the northern and southern limits of the state. It contains 2,108 square miles, 58 more than the state of Delaware. The Snake river forms its southern boundary. The Palouse river and its tributaries produce the only valleys of the section and form an excellent natural drainage system. The county is in the heart of what is known as "the Palouse country," and it is the banner county of the state in its production of wheat and animal products.

Topography: The elevation ranges from 700 feet above sea level in the Snake river valley to 2,600 feet in the southeastern part, not including two elevations of 3,300 and 3,700 feet. The country is neither rough nor level but a continuous undulating prairie covered with round-top hills that have rather long gentle southwesterly slopes and more abrupt northerly ones. Toward the east and approaching the Couer d'Alene mountains are some craggy bluffs containing considerable merchantable timber. The river margins have had quite heavy growths of soft woods.

Lands: It is safely estimated that fully 90 per cent. of the entire area is of agricultural value. Of the entire 1,349,120 acres in the county, the census of 1910 shows that 1,187,966 acres, or 88.1 per cent., were contained in 3,096 farms, of which 923,820 acres were improved, making a total average per farm of 383.7 acres with an average improved acreage of 298.4. There remained of unappropriated and unreserved government lands July 1, 1912, 12,867 acres. The state owns about 38,714 acres. Very little land is for sale.

Soil: The soil is fairly uniform all over the county and is chiefly a balsaltic loam of fine texture containing considerable organic matter and just sufficient mineral nutrients to make it ideal for the growth of grains, forage, fruit and vegetable crops. The soil extends from the surface to bed-rock, often a hundred feet in depth, and is as fertile on the round hilltops as on the plains. It is clear of gravel and rock and yields readily to plow and cultivator.

Population: The census of 1910 gives the county 33,280, that of 1900, 25,360, showing an increase of 31.2

per cent. Seventy-one per cent. were of white native parentage; 18.7 per cent. native born white of foreign or mixed parentage, and 10 per cent. were white foreigners. Of the latter Germans led with 725, of Russians there were 614, Canadians 436, Scandinavians 342, and Britishers 332. The county contains sixteen incorporated towns, within which are 46 per cent. of its total population.

Prices of Land: The value of land depends considerably on its location. From the middle to the western edge unimproved land is held at from \$10.00 to \$50.00, according to transportation facilities, and improved from \$40.00 to \$75.00. Eastward, prices will run from \$60.00 to \$100.00 per acre with occasional pieces close to cities or towns at still higher prices. There is very little unimproved land in the county. The cost of putting land under cultivation is very low, probably not more than from \$3.00 to \$5.00 per acre. The usual improvements include fencing, windmills, silos and buildings. The tendency in this section is to increase the size of the individual holdings. By more intensive farming, however, much smaller tracts would do for a family. Truck farming, fruit raising and poultry-raising would be profitable on ordinary sized tracts.

Climate: In 1912 the total precipitation at Pullman on the eastern edge was 21.03 inches, including 26.2 inches of snow; at La Crosse in the west 17.22 inches, including 10 inches of snow, and at Rosalia in the north 20.67 inches, including 23.6 inches of snow. At Pullman the annual mean temperature was 46.2 degrees, at La Crosse 48.7 degrees. Sudden or radical changes in temperature seldom occur. The winters are short and the summers long and comfortable.

Transportation: Cheap transportation for crops in the southern part of the county is supplied by navigation on the Snake and Columbia rivers. Two hundred and forty miles of the Oregon-Washington Railroad & Navigation railway radiate throughout the county; 170 miles of the Northern Pacific railway crosses it each way. The Chicago, Milwaukee & St. Paul railway traverses it from east to west and the Spokane, Portland & Seattle railway passes across its northwest corner. In addition, the Spokane & Inland Empire electric railway

reaches all of the principal cities from Spokane and intends to radiate the county westward. One hundred and fifty miles of the state highway have been built and all county roads are gradually being improved with macadam.

Natural Resources: Eighty-five per cent of the entire surface has been proven ideal for grain culture. It is the leading county in this respect, producing 8,000,000 bushels annually. Since this was the easiest and quickest crop to raise and the returns were unusually good, it was natural to engage first in such enterprise, but the same ideal conditions are now known to be equally capable of yielding higher priced crops, viz., fruits, and vegetable products. Conditions for dairying are also splendid. These enterprises together with the raising of stock, sheep, swine and poultry may yet become equally important with grain.

Water: Irrigation is practiced in a limited degree along the Palouse and Snake rivers. Bedrock is from a few feet to 200 feet below the surface and sometimes artesian water is obtained in this, but always surface wells are found in the intervening clay subsoils. The water is usually cool, pure and free from mineral matter in excess. A limited quantity of water power has so far been developed.

Wages: The occupations are generally those pertaining to wheat raising, general farming, stock raising, and fruit harvesting. Wages are \$35.00 to \$40.00 per month and board. Common farm labor by the day without board is from \$1.00 to \$3.00. The usual increase takes place during the rush period of the harvest season, skilled operators of harvesting machines getting from \$5.00 to \$10.00; assistants from \$3.00 to \$6.00, and laborers from \$2.50 to \$3.50 per day. In other skilled occupations union wages prevail.

Markets: Sixteen incorporated towns and many other shipping stations located on railroads make the marketing of grain easy. The main market for exporting grain is Tacoma; for milling and brewing grain, Spokane; for dairy products, Spokane and Lewiston, Idaho. Most of the other products are consumed locally.

Social Conditions: Evidences of wealth and a general desire for culture and refinement are everywhere apparent, while a spontaneous feeling of optimism and free hospitality pre-

vails. These conditions have resulted in excellent schools, colleges and church facilities. At Pullman is the State College of Washington, devoted to the teaching of agriculture and science, as well as providing a liberal college course. The experiment station is located here and receives \$30,000 a year from the national government for the purpose of conducting experiments in agriculture. There are 173 school districts, 32 high schools, 41 post offices and 38 rural routes.

CITIES AND TOWNS.

Colfax: County seat. Altitude 1,950 feet. Population 1910, 2,783. Local estimate 3,000. One of the oldest settlements of Eastern Washington, 88 miles south of Spokane and central in the county. It is on the Palouse river and the main line of the Oregon-Washington Railroad & Navigation railway, and is also one of the terminals of the Spokane & Inland Empire electric railway. It has four banks, seven churches, three grade schools, one high school, several miles of paved streets and substantial public and business buildings. It publishes two newspapers, is supplied with electric lights and power, and a good water system. Wheat raising, stock farming and dairying are its main supports. It has a sash and door factory, foundry and machine shops, flouring mills and quarries.

Pullman: Altitude 2,340 feet. Population 1910, 2,602. A very pretty city located in the richest section of the Palouse country. It is a home community and one of the chief educational centers of the state, since the State College of Washington is located here. The Oregon-Washington Railroad & Navigation and the Northern Pacific railways, as well as the Spokane electric railway, afford ample transportation. It is the distributing center of a magnificent farming country, yielding wheat, fruit and dairy products. It has a waterworks system, supplying water obtained from artesian sources, a gravity sewer system, electric light and power, nine churches, three banks, an ice plant, flour mill, grist mill, vinegar factory, cigar factory and three newspapers.

Tekoa: Altitude 2,400 feet. Population 1910, 1,694; local estimate 2,200. Located in the extreme northeast corner of county amidst rolling prairies and wheat fields. Two creeks form junction at center of city. This is an

important railway hub of the Chicago, Milwaukee & St. Paul and Oregon-Washington Railroad & Navigation Company railways, which radiate in five directions from the town. It ships much grain, livestock, and some fruit, has several warehouses, a flour mill, a brewery, chop and feed mill, artesian wells, electric lights and paved streets. One newspaper, seven churches, and a high school are maintained. Rich agricultural land in the vicinity may be bought for \$75.00 to \$100.00 per acre. An agricultural harvest exhibit is held annually.

Palouse: Altitude 2,430. Population 1910, 1,549. One of the important centers of the great inland empire. Situated centrally north and south at the eastern edge of the county on the Palouse river, the Washington, Idaho & Montana railway, the Northern Pacific railway, and the Spokane electric trolley line. The town is picturesquely located, its residence streets rising in terraces from the business district on the river. It is the gateway to the timber regions of Idaho and the trading point for an extensive area. It has two flour mills each with 100-barrel daily capacity, a creamery, steam laundry, wagon and blacksmith shops, one high and two grade schools, seven churches, a newspaper, artesian waterworks, electric lights and volunteer fire department. It holds an annual Harvest Carnival.

Garfield: Altitude 2,470 feet. Population 1910, 932; local estimate, 1,200. Situated in the eastern part of the county and served by two trunk railways, the Oregon-Washington Railroad & Navigation and the Northern Pacific, and by the Spokane & Inland Empire electric system. The town has five churches, a high school and a 13-acre park. Business streets are paved. It maintains municipal waterworks, electric lights, telephone system, newspaper and volunteer fire department. Essentially a farming community, it has of late made certain success of dairying and hog raising.

Rosalia: Altitude 2,200 feet. Population 1910, 767; local estimate, 1,200. On the Spokane & Inland Empire electric railway, and the Lewiston branch of the Northern Pacific at its junction with the Chicago, Milwaukee & St. Paul railways. It is supported by a rich wheat farming section. One of the large dairies of the state is also here. Large quantities of wheat are bought and sold. It supports a newspaper, four churches, a four-year high

school and a grade school, also electric lights and a city park. An annual fair and livestock show is held.

Winona: Altitude 1,450 feet. Population (local estimate) 300. A farming village at a junction point of the Oregon-Washington Railroad & Navigation railway near the center of the county. Dairying, wheat, hay and stock raising are important. Fruit culture is carried on very successfully and a specialty is made of poultry. It has a grist mill, a weekly paper, two churches and good school facilities.

Colton: Altitude 2,563 feet. Population 1910, 393. Located in a rich wheat region and on the Genessee branch of the Northern Pacific railway. It has a 300-barrel flouring mill, a machine shop, a newspaper, two churches and an academy for girls, in addition to a four-year high school. It is provided with a municipal water system, electric lights and volunteer fire department.

Farmington: Altitude 2,628 feet. Population 1910, 489; local estimate, 750. At the base of the Coeur d'Alene mountains on the eastern edge of the state, on the Northern Pacific and Oregon-Washington Railroad & Navigation railways. Besides farm enterprises, including dairying, horticulture and cattle raising, it has a number of manufacturing plants, viz., three fruit packing houses, two machine shops, a flour mill, creamery and vinegar works. It is a heavy shipper of grain and operates six grain warehouses. Four churches, a \$2,000 high and one grade school, a newspaper, electric lights and city waterworks are maintained.

Malden: Altitude 2,176 feet. Population 1910, 798; local estimate, 1,250. A division point of the Chicago, Milwaukee & St. Paul railway in the northern Palouse country. Monthly payroll from its railway is about \$43,000.00. Corn and wheat, the principal crops, grow here without irrigation. General farming and stock raising are also important. The town has water system, electric lights and telephones, high school, grade school and two churches. It maintains a weekly newspaper and holds an annual "Corn Fair."

Oakesdale: Altitude 2,264 feet. Population 1910, 882; local estimate, 1,200. It is a junction point of the Oregon-Washington Railroad & Navigation, Northern Pacific and Spokane Electric railways. Besides being essen-

tially a farming town, it derives considerable support from railroad occupations. It has a carriage factory, a grist mill, five churches, a high school and a newspaper. An agricultural fair is held each year.

Uniontown: Altitude 2,500 feet. Population 1910, 426. A farming town near the state line on the Northern Pacific railway. Chief industry is a brick yard, but of late it has gone into stock and hog raising on a fairly large scale and with success. It is provided with electric lights, telephone, good schools, a church and weekly newspaper.

Albion: Altitude 2,100 feet. Population 1910, 276. A prosperous farming town in the wheat belt and on the Oregon-Washington Railroad & Navigation railway about 14 miles southeast of Colfax. It has a three-year high school, two grade school buildings, a sectarian college and three churches.

Endicott: Altitude 1,726 feet. Population 1910, 474. Present local estimate, 500. Located in a wheat section on the Oregon-Washington Railroad & Navigation railway. Town has four churches, a high school with a 19-acre improved park, a grade school, a private German academy, a free public library, bank, fire department, electric lights and waterworks.

La Crosse: Altitude 1,480 feet. Population (local estimate) 350. On the

Oregon-Washington Railroad & Navigation railway in what is known as the dry wheat region, in the western part of the county. It has a weekly paper, three churches, and combined high and grade school. Conditions for stock raising and poultry are good. Three warehouses of 300,000 bushels capacity, and an elevator of 100,000 bushels capacity, are kept busy.

Lamont: Altitude 1,986 feet. Population (local estimate) 350. On the Spokane, Portland & Seattle railway, in the northeastern corner of the county. Supported by a prosperous wheat and stock raising section and provided with ample school and church facilities. It has a weekly newspaper.

St. John: Altitude 1,974 feet. Population 1910, 421; local estimate, 600. A farm town on a branch line of the Oregon-Washington Railroad & Navigation railway, in Pleasant valley. It supports a newspaper, four churches, a grade and a high school. An agricultural harvest carnival is held each fall.

Elberton: A farming town of about 400 people, in the central-eastern section of the county on the Oregon-Washington Railroad & Navigation Co. railway. It has a flour mill, two churches and a high school.

Thornton, Johnson, Penewawa, Wilcox and Belmont are other important trading centers.

SOUTHEAST WASHINGTON.

WALLA WALLA COUNTY.

The Indian name "Walla Walla" which means "Many Waters," adorns a river, a county and a city. The valley of this name comprises all of the southeastern part of the state between the Snake and Columbia rivers on the north and west and the Blue mountains on the south and east and extends on into Oregon. It includes within the State of Washington, the counties of Columbia, Garfield and Walla Walla, and the best of Umatilla county, Oregon. The country is rolling but not hilly, and was originally covered with a heavy growth of bunch grass with some timber along the streams and in the mountains. Topographically the country rises gently from an altitude of 350 feet along the Columbia river on the west, to a

height of some 2,000 feet in the Blue mountains on the east. The total area of the county is 1,265 square miles, fifteen square miles larger than the State of Rhode Island, with its population of some 500,000 people.

Population: In 1900 the county had 18,680 people. The 1910 census shows an increase of 70.9% for the decade. Of the total population, 27,442 were native born Americans. Recent estimates show the increase for the last three years to have been proportionately larger than during the ten years from 1900 to 1910.

Lands: The county contains 809,600 acres of land out of which there has been taken for the Wenaha Forest Reserve 3,520 acres; surveyed lands of

the United States, 11097 acres, classified as "grazing and farming lands"; state school and granted lands, 30,516 acres; leaving a balance of over 750,000 acres in the hands of private owners.

The tillable lands are estimated to comprise about 700,000 acres, but the remainder is thoroughly adaptable for splendid pasturage.

Soil and Climate: In the lower valley lands the soil is a rich, deep black loam. It is especially suitable for fruits of all kinds and alfalfa. The upland soil is the famous volcanic ash in which wheat and barley reach their highest degree of perfection. Both dry farming and irrigation are practised with great success and all products are the standards of their kind.

The climatic conditions of Walla Walla county are very propitious for agriculture. The annual precipitation, during thirty years, at the city of Walla Walla, averaged 17.7 inches. Summers are warm and dry, while the winters are of brief duration and with seldom cold enough to supply ice for local use.

Prices of Land: Unimproved land may be bought for \$12.00 to \$50.00 per acre, and improved for \$40.00 to \$200. Improvements include state of cultivation and buildings. The cost of putting rough land under cultivation varies from \$7.50 per acre for sage brush, to \$50.00 for timbered regions. An ordinary family needs from 160 to 320 acres of grain land or the usual small tract for fruit raising. There are opportunities for leasing on a basis of one-third to two-fifths of the crop delivered at warehouse.

Resources and Industries: The chief industries in the order of importance are: general farming, dairying, stock raising, poultry raising, and manufacturing. Sheep contribute materially to the wealth and although the curtailment of free range has reduced the size of the bands, they are still bred in vast numbers, pasturing during the summers in the Blue mountains and wintering in the warm valley. The average wool clip is 8.6 pounds per sheep, compared with 6.1 pounds for the entire United States. This is also one of the leading counties in hog raising, which industry is destined to assume greater importance in the industrial upbuilding of the section.

Its wheat crop is about 5,000,000 bushels annually and about the highest per acre in the state. The main crops produced and their relative importance, taking wheat as a basis are:

wheat, 100%; barley, 85%; fruit, 60%, and alfalfa, 25%.

Water: The Columbia, the Snake, the Walla Walla, the Touchet rivers, and innumerable other smaller rivers and creeks supply the county with "many waters." Supplementing the streams are a number of artesian wells in active operation. Irrigation by this method is made highly practicable for land where distance and elevation prohibits the use of river water, while the expense of pumping is eliminated. The probable horsepower of the rivers has never been determined but that it exists, with energy sufficient to supply many manufacturing enterprises, is generally acknowledged.

Transportation and Markets: The county is thoroughly cut up with railroads, including the Northern Pacific, with branches; and the Oregon & Washington circling the county; while every important point not reached by these is made easily accessible by a number of electric lines.

Good county roads are numerous and passable the year round. The Inland Empire highway, a thoroughly first class primary road extending throughout the county from west to east, is now in course of construction by the state.

A ready market for its wheat production is found in the open marts of the world's trade and no difficulty ever exists in its disposal. The fruits, vegetables and other products, after home consumption, find a ready market in northern Idaho and Montana, Spokane, Seattle and Tacoma.

Wages: As this county is essentially a farming country, the principal employment is to be found on the farms and during harvest season. Wages are usually from \$30 to \$35 per month with board; harvesting from 35 to 50 cents an hour.

Social Conditions: Every religious denomination is amply represented. The county is divided into 67 school districts with property valued at nearly three-quarters of a million dollars. Telegraph and telephone lines form a network about the county; mail facilities are adequate in every detail. Fairs and other exhibitions of the industrial products of the county are held in many places. Live stock and poultry shows of much merit are common in some of the cities and towns. There are 10 high schools, 16 post offices and 12 rural routes.

Daily newspapers are published in

the larger centers and good weeklies in the smaller settlements.

CITIES, TOWNS AND VILLAGES.

There are sixteen postoffices, which enables nearly every inhabitant to receive mail regularly. These offices are Attalia, Burbank, Clyde, College Place, Dixie, Eureka, Lamar, Lowden, Prescott, Slater, Touchet, Two Rivers, Waitsburg, Walker, Walla Walla and Wallula. A few of the larger places are briefly described.

College Place: Altitude 900 feet. Not incorporated. Estimated population 1,900, 80% American born and 20% Germans. It is a suburb of Walla Walla city situated on the Oregon & Washington railroad and the Walla Walla Valley electric line. The village was originally established as an educational center for the Seventh Day Adventists who at present maintain a college and a college normal school here. It has three churches and is plentifully supplied with electric lights.

Prescott: Altitude 1,035 feet. Incorporated. Population 502 (U. S. census). Local estimate 600. Practically all Americans. It is situated on the Oregon & Washington line near the heart of the famous bluestem wheat belt, conceded to be the best milling wheat raised in the Inland Empire. The industries are: farming, horticulture, dairying, stock and hog raising. It also has a large flouring mill. Land can be purchased within a radius of ten miles of the city at from \$15 to \$80 per acre. This land is best adapted to wheat and other grains, hay and fruit. The city has four churches, grade and high school, a ten-acre park, telephone system, water works and a good weekly newspaper.

Waitsburg: Altitude 1,268 feet. Incorporated. Population, as shown by the U. S. census of 1910, 1,237. Local estimate 1,400. Mostly American born. It is located eighteen miles northeast of Walla Walla on both the Oregon & Washington and the Northern Pacific railways, between the Touchet river and Coppel creek, two mountain streams. The city is surrounded by a very fertile farming country, the principal products of which are wheat and barley. The bottom lands are rapidly being cut up into orchard tracts and commercial apples are fast becoming a staple product.

It has a flouring mill, water power, running the entire year and with a capacity of 600 barrels daily. It enjoys a good water system, electric

lights, three churches, a grade and a high school, complete telephone system, two city parks and a weekly newspaper. The annual horse show is held here about the first of May.

Walla Walla: County seat. Altitude 1,060 feet. Population, census of 1910, 19,364; local estimate 20,200; mostly Americans with Germans, Russians, Italians and Chinese following in the order named. Situated in the south central portion of the county on the Oregon & Washington and Northern Pacific railways and on the direct line of the Inland Empire highway, a primary road now in course of construction by the state and which will connect with every portion of the state.

Being surrounded by one of the richest farming districts in the world, its sustaining industries are agriculture, horticulture, stock raising, dairying and manufacturing of farming machinery. It also has several wood working establishments.

Land may be bought within a radius of ten miles at prices ranging from \$30 to \$300 per acre. Business property may be bought at \$200.00 per front foot and 50-foot residence lots at an average of \$800.00 each.

The city has seventeen miles of paved streets; fourteen miles of electric railway; a paid fire department; five banks, two of which are among the oldest in the state; sixteen churches; five grade schools; accredited high school; two parks, one of forty acres and the other of ten acres; two metropolitan daily papers and one weekly newspaper.

The water for domestic and city purposes is brought by gravity system from the mountains and is pure, wholesome and abundant. The rainfall for past 24 years has been 17.7 inches. The electric power is generated by water power and is used both for illumination and the furnishing of energy to many manufacturing enterprises.

It is the commercial and financial center for all of southeastern Washington and is the main source of supplies for northeastern Oregon.

The Walla Walla county fair is held here annually in September, the last three days being devoted to a Frontier Days' Celebration. May day festival is held during the latter part of May and an annual poultry show in January. Whitman College is located here.

Wallula: Altitude 322 feet. Population (local estimate) 275. A railroad

and farming center located on the Oregon-Washington Railroad & Navigation Co. and Northern Pacific railroads. Wheat and alfalfa are raised. Dairy-

ing has possibilities. Town has a church, good grade school, and one newspaper.

COLUMBIA COUNTY.

Columbia county, nestling between Walla Walla and Garfield counties in the southeastern part of the state, has the navigable Snake river for its northern boundary and the state line on the south. Its total area is 858 square miles, of which the southern portion lies in the Blue mountains and is a part of the Wenaha Forest Reserve. Many small streams originate here and traversing through deep canyons drain the southern part of the county into the Touchet river. The remainder is drained by the Tucanoun and its tributaries into the Snake. Fertile valleys are formed by these rivers while on the hills above are broad acres of rich rolling farm land. The population, according to the 1910 census, was 7,042. The citizenship is chiefly American.

Lands: There are altogether 549,120 acres of land in the county, including 161,280 acres in the reserve, 11,197 acres open to homesteading and 16,193 acres of purchasable state land, leaving about 360,000 acres in private ownership. Nearly all of this is in 703 farms and about one-half is improved. One farm alone contains about 30,000 acres. About one-half of the county is tillable and the remainder suitable for pasture. There is considerable logged-off area on the foot hills adjoining the timber.

Soils and Water: The northern part of the county contains some sandy soil and is quite famous for grazing purposes. The central portion contains rich fruit and grain lands. The soil is usually a deep volcanic ash liberally mixed with clay. Very little irrigation is necessary. Climate is healthful and vigorous.

Prices of Land: The prices of unimproved land range from \$3.00 to \$15.00 per acre with very little to be bought. The improved land is priced at from \$20.00 to \$500.00 an acre. There are various estimates as to the quantity of land required for a family of five, running from a 5-acre tract up to 2,000 acres, the amount depending entirely upon the crop sought to be produced. The smaller tracts are for fruit, the Touchet valley being one of the richest fruit sections in the state.

Resources and Industries: Raising of stock, fruit and grain constitute chief industries. The grain crop runs to about 3,000,000 bushels, chiefly barley and wheat. In 1912 it was valued at \$2,000,000.00. Sheep, beef cattle and hogs are also important products. The heaviest fleece known, weighing 66½ pounds, was sheared from a sheep in this county. Water power is considerable but only slightly developed.

Transportation: The Oregon & Washington and the Northern Pacific railroads traverse the county and furnish excellent outlet for all products. The "Inland Empire" and "Eastern Route of the Inland Empire," both primary state highways, traverse the county from south to north and from west to east. On the northern boundary the Snake river is navigable the full distance.

Markets: The chief markets in the county are Dayton and Starbuck, but the larger portion of the product finds its sale in the markets of the world.

Wages: The wages paid are governed by the kind of work performed and the season in which the labor is done and range from \$1.25 to \$2.50 per day with board. The work is general farm labor, although some road work and fruit picking (in season) may be had at \$2.50 for the unskilled and \$4.00 for the skilled worker.

Social Conditions: Churches of all denominations and public schools are found in and near the settled districts. Telegraph and telephone service is well-established in every section. The Columbia County Agricultural Fair is held every autumn and the county poultry show takes place in the winter. There are 43 school districts and 7 post offices.

CITIES AND TOWNS.

There are but two cities of any magnitude within its limits, viz., Dayton and Starbuck.

Dayton: County seat. Altitude, 1,620. Population, U. S. census, 2,389. Local estimate 3,500. It is situated very near the geographical center of the county and is the chief point for all exports from the section as well as the dis-

tributor of its merchandise. It is substantially built and is known as the "city of shady walks and pleasant lawns." It has a flour and feed mill of large capacity and mercantile establishments of magnitude and wealth. The religious denominations are well represented by nine churches, while three grade and one high school of recognized merit and standing are provided. It has three newspapers, electric lights, telephone system and volunteer fire department.

GARFIELD COUNTY.

This is the panhandle shaped county in the southeastern part of the state. It is about fifty miles in length and ranges in width from six miles at the Oregon boundary to thirty miles in the north central.

General topography is similar to counties on either side. The narrow strip is occupied by the Blue mountains and is contained in the Wenaha Forest Reserve. It is heavily timbered and the Pataha river finds its source here. This, with the Deadman creek in the northern part, are the main drainage mediums. About 60% of the county is a rolling plateau rising rapidly from the Snake river, bounding it on the north.

Population: The U. S. census of 1900 records 3,918, that of 1910, 4,199. The population is largely American with Germans and Scandinavians in second and third place, respectively. The majority are in the valley of the Pataha.

Lands: The total land area is 444,160 acres, out of which there are held in the Wenaha Forest Reserve some 99,200 acres; in addition to which the government holds as "unappropriated and unreserved" (July 1st, 1913) some 8,362 acres, while the state school land (September 30th, 1912) amounted to 14,274 acres, leaving over 300,000 acres in the hands of private owners. It is estimated that there are 163,790 acres of tillable lands in Garfield county and that the remainder outside of forest reserves could be used advantageously for grazing purposes. The average rainfall is from 16 to 20 inches. There are no extremes of temperature and the weather is nearly always suitable for outdoor work of any nature.

Soil and Crops: Mostly volcanic ash and deep loam. Best adapted to grain raising. In the irrigated bottoms alfalfa and fruits are grown extensively,

Starbuck: Altitude 670 feet. Population, U. S. census, 761. Local estimate 1,000. The city lies along the banks of the Tucannon river in the northern end of the county and is the natural shipping point for the products of that section. It is the junction for two lines of the Oregon & Washington railroad which traverse the county. Railroad shops are maintained here, giving employment to a large force of men. Land in the vicinity is quoted all the way from \$2.00 to \$200.00 per acre according to locality and fertility.

while on the higher and main plateau wheat, barley, oats and timothy are the principal products.

Prices of Land: Very little of the unimproved land is tillable. It is held at from \$10 to \$20 an acre with plenty for sale. The improved, or grain land, is offered at from \$25 to \$80 with considerable on the market. The price of the improved land is governed by location and state of improvements. Of the irrigable fruit lands, ten acres is plenty for a family. Opportunities exist for leasing both on shares and on a cash basis.

Resources and Industries: Besides the rich farm lands, this county has about 300,000,000 feet of timber in the reserve destined in time to yield big returns. The annual grain crop is about 2,000,000 bushels. This is supplemented with cattle, hogs, horses and poultry. Along the Snake river much fine fruit is produced.

Water: Water for all purposes is obtainable from the mountain streams and from wells. The quality is generally good. There is water power taken from the Pataha creek and utilized in the running of two flouring mills, each with a capacity of about sixty barrels per day. Other water power could be obtained from the upper Tucannon river in the government reserve, but is not now available.

Transportation and Markets: Daily steamboat service is enjoyed by all settlements located on the Snake river. On the north side the Camas Prairie railroad skirts the county, while daily trains run on the Oregon & Washington branch line from Starbuck in Columbia county to Pomeroy. Public highways are numerous and generally good. Most of the grain is shipped through Pomeroy. Prices for wheat range from 60 to 90 cents; cattle, 5 to

7½ cents per pound; hogs, 6 to 9 cents per pound.

Wages: Very little labor other than farm work is needed in Garfield county. The ruling wage for this is \$30 to \$40 per month ordinarily, and from \$3 to \$3.50 per day during harvest. These wages include board. Some work at carpentering, painting and like employment may be found in the settled districts at about \$4 a day. Unskilled labor receives \$1.50 to \$3 a day.

Social Conditions: School houses and churches are within easy reach of all. The residences are made home-like, while spacious barns and up-to-date farm machinery betoken general prosperity. The rural mail delivery and telegraph and telephone service are also factors in the general welfare of this community. There are 5 post offices and 36 school districts in the county.

ASOTIN COUNTY.

This is one of the smaller counties and located in the extreme southeastern part of the state. It slopes from the Blue mountains in the southwest toward the navigable Snake river bounding it on the east and north. It is abundantly supplied with small streams forming many fertile valleys. About 50% of its surface is rolling and mountainous and the other 50% nearly level, consisting of plateaus, bottom lands, and bench lands.

Population: Its population in 1910 was 5,853. In 1900 it was only 3,336. People are chiefly Americans, with Germans, Scandinavians and English ranking next.

Land: Asotin county contains 387,840 acres of land, of which 54,400 acres are held in the Wenaha Forest Reserve; 23,338 acres are included in the state lands, and 64,934 acres are open to homesteading. This would leave in the hands of private owners, about 244,000 acres, well adapted to general farming, fruit and early vegetable raising, live stock and poultry culture.

Soil: The soil is of a diversified character. It is from two to ten feet deep; lower benches consist of volcanic ash, higher altitudes consist of varying light to heavy loam. Uplands are best suited to the production of wheat, barley, oats and timothy. In the valleys irrigation is practiced and fruit, truck and alfalfa assume the

CITIES, TOWNS AND VILLAGES.

Pomeroy: County seat. Altitude 1,900 feet. Population 1910, 1,605. Local estimate 1,800. Principally German and Irish descent. It is the terminal of a branch line of the O.-W. R. & N. railroad, the center of the grain belt and principal city in the county. Auto stages connect with Dayton and with Lewiston, Idaho. It is supported by farming and stock raising industries and serves as the main shipping center for the county. Opportunities exist for the establishment of a dairy. Yearly payroll is about \$175,000. It has municipal water works, electric lights, and paid fire department. Seven churches, a high school and grade school, and two private schools, contribute to the general welfare. The city also has a public park and two newspapers. County fair is held here.

Other centers are Ilia, May View, Peola, Unfried, Pataha City, Gould City, Valentine, Chard, Zumwalt, Ping and Alpowia.

highest degree of perfection. Two full crops of strawberries and as many as three crops of potatoes have been known to mature near Asotin, the county seat.

Prices of Land: The prices of unimproved lands range from \$10.00 to \$40.00 per acre. Improved lands may be had within a radius of from two to ten miles of incorporated municipalities for from \$50.00 to \$75.00 an acre; partially improved "homestead relinquishments" 25 to 50 miles distant from Clarkston at from \$10.00 to \$40.00. The choicest fruit lands, with perpetual water rights, are sold at from \$300.00 to \$400.00 an acre.

Resources and Industries. The natural resources are the magnificent timber belts, the underlying immense bodies of coal and the agricultural lands. The leading crop is wheat. Stock and poultry raising, dairying, fruit growing, diversified farming and truck gardening are also important industries that have proven profitable. About 3,000 horse power is generated in Asotin creek and 3,000 acres are irrigated. Grande Ronde river has unlimited undeveloped power. Capacity of lumber mills is about 2,000,000 feet.

Water: The navigable Snake river on the northern and eastern boundaries; the Grande Ronde river and Joseph creek running through the southern portion; Asotin creek and

many tributaries, with sources in the Blue mountains, flowing through the central part; and Alpowa creek in the north end of the county, furnish abundance of water for all purposes.

Transportation: There are no railroads in this county. The Camas Prairie railroad, however, from Lewiston Junction in Whitman county to Lewiston, Idaho; the Northern Pacific and the Oregon-Washington Railroad & Navigation Company are just across the county and give rail advantages. A large steel suspension bridge connects Clarkston with Lewiston, Idaho. The Snake river is navigable from its mouth for a considerable distance beyond Asotin county. The "Eastern Route" of the "Inland Empire" highway, a primary road under construction by the state, crosses the northern part of the county.

Markets: Local packing and commission houses at Asotin, Clarkston, and Lewiston, Idaho, handle most of the products. Most of the fruit is shipped to the large mining towns of Montana, to the Dakotas, Minnesota, British Columbia and Manitoba, where good prices are always obtained. Much wheat is shipped over sea via the river route.

Wages: Carpenters \$3.50 to \$4.50 a day; masons and plasterers \$4.00 to \$5.00 a day; laborers \$2.00 to \$2.50 a day; farm hands \$25.00 to \$40.00 a month and board; harvest hands \$3.00 to \$5.00 per day and board. Women and girls, during the season, make about \$10.00 a week picking and packing fruit.

Social Conditions: Asotin county is possessed of all the usual comforts and conveniences. Churches of nearly all denomination and schools both high and grade are generally to be found. Fraternal societies are well represented. Telegraph and telephone communication is ample. There are 27 school districts, 3 high schools and 10 post offices.

CITIES, TOWNS AND VILLAGES.

Asotin: County seat. Altitude 760 feet. Population, 1910 census, 820; local estimate 1,450. The farms, orchards and vineyards tributary are famous for their large and excellent productions. It has an electric plant, flour mill of 100 barrels per day capacity, a large grain warehouse and a cement plant. Four church denominations are represented. It has one high and two grade schools, weekly newspaper, municipal water system, electric lights and volunteer fire department.

Clarkston: Altitude 825 feet. Population 1910, 1,257. Local estimate 1,500. It boasts the justly celebrated "Vineland" district where irrigation is rapidly making of that valley one of the wonder spots on the American continent. Clarkston is so closely allied with Lewiston, Idaho, on account of the big steel suspension bridge connecting the two municipalities that the interest of the two are almost identical. The Northern Pacific and O.-W. R. & N. railroads are less than a mile away. It is an important shipping center for the products of a large and growing territory rich in possibilities for fruit culture, grain and stock raising. It has a box factory, sash and door factory, two lumber yards, electric plant, canneries and fruit packing houses. It has one weekly and one daily newspaper, nine churches, three grade schools, a high school, telephone system, public library, electric lights, and paid fire department.

Cloverland: Altitude 2,250 feet. Estimated population 100. In the midst of a rich farming district, mostly in orchards and under irrigation. Tracts are five to ten acres. A daily stage connects it with Asotin 15 miles away.

Anatone: With an estimated population of 250 people is another farming town near the center of the county. It has a church, high school, public library, a park, one mile of paved street and a volunteer fire department.

Other centers are Craige, Jerry, Silcott, Theon and Zindel.

A Few Important Facts Showing Washington's Superiority.

THE STATE OF WASHINGTON

- Increased in population during decade from 1900 to 1910 at a higher rate than any other state in the Union.
- Has a larger body of standing timber than any other state except Oregon.
- Leads all states in the annual production of lumber.
- Produces two-thirds of all the shingles manufactured in the United States.
- Gained in total value of manufactures during a ten year period at a higher rate than any other state, whose manufactures amounted to more than \$18,000.00 in 1899.
- Has the lowest death rate of all registration states.
- Ranks first of 48 states, educationally, according to statistics compiled by the Russell Sage Foundation.
- Has the smallest number of illiterates per thousand of native born whites 21 years of age and over (according to the 1910 census).
- Has two cities ranking first and third in least illiteracy of all municipalities with 100,000 population and over.
- Produces more wool to a fleece than any other state in the Union.
- Stands first in the yield of oats per acre.
- Produces more hops per acre than any other state.
- Gets the highest prices for apples in foreign markets.
- Stands third in the Union in total annual production of plums and prunes.
- Contains land that broke the world's record in the production of wheat per acre.
- Has produced a number of world record dairy cows.
- Stands third in Union in amount of developed water power and ranks not lower than third in quantity still undeveloped.
- Was the first state to provide compulsory industrial insurance for its injured workmen.
- Is an empire within itself, and can produce everything necessary for human happiness.
- For further information address the various Commercial Organizations, or write direct to

THE STATE BUREAU OF STATISTICS AND IMMIGRATION,
OLYMPIA, WASHINGTON.

ABSTRACT OF ALL TAXABLE PROPERTY BY COUNTIES FOR THE YEAR 1913
SHOWING ACTUAL VALUE, ASSESSED VALUE, AND RATIO OF ASSESSED TO ACTUAL VALUE.
(From Report of State Board of Equalization.)

COUNTIES	Actual value of all taxable property exclusive of public utilities	Actual value of public utilities	Actual value of all taxable property	Ratio of assessed value to actual	Assessed value of real property including improvements (except railroads and telegraph lines)	Assessed value of taxable personal property	Assessed value of public utilities	Assessed value of all taxable property
1 Adams	\$25,069,372	\$19,661,066	\$54,731,468	41.16	\$2,778,871	\$1,651,978	\$8,062,507	\$22,523,256
2 Asotin	21,492,463	14,305,311	11,823,651	36.45	3,428,846	626,015	.....	4,127,471
3 Benton	13,822,463	8,065,866	37,707,714	37.45	8,139,359	4,670,332	5,357,389	14,121,389
4 Chelan	77,371,563	7,779,693	85,407,459	40.23	26,556,049	4,750,822	3,232,828	31,339,409
5 Chelan	34,530,706	162,168	42,330,309	35.98	11,126,243	4,665,855	2,795,211	15,209,290
6 Clallam	23,416,946	6,703,283	23,579,074	32.76	11,836,130	1,469,800	85,559	12,440,319
7 Clarke	38,900,748	4,506,719	45,064,031	30.75	9,826,205	1,722,219	2,061,259	13,567,189
8 Columbia	16,312,643	5,914,217	20,849,392	41.31	5,731,190	1,801,566	1,831,725	8,612,871
9 Cowlitz	25,725,141	3,686,067	31,639,353	29.12	6,089,631	801,530	1,722,219	9,213,580
10 Douglas	21,291,420	2,543,169	24,977,487	39.02	7,508,947	768,965	1,438,303	9,746,215
11 Ferry	4,518,023	14,774,288	17,061,192	45.18	1,471,808	633,432	1,149,000	3,190,246
12 Franklin	16,105,296	746,983	30,879,584	28.00	3,876,610	633,432	4,136,800	8,646,926
13 Garfield	11,672,525	13,469,323	12,419,518	36.01	3,576,210	827,070	2,968,983	4,472,268
14 Grant	27,872,298	.....	41,341,621	35.60	9,085,918	830,620	4,795,077	14,717,615
15 Island	3,603,958	.....	3,603,958	46.18	1,442,708	.....	.....	1,664,308
16 Jefferson	16,407,982	970,759	17,378,741	39.35	5,855,862	600,679	381,993	6,838,534
17 King	502,651,059	56,972,822	559,623,881	46.82	5,855,862	31,229,726	26,674,672	282,015,898
18 Kittitas	15,730,829	23,216	15,819,545	36.40	5,082,800	716,004	8,450	5,783,314
19 Kittitas	32,720,909	17,563,637	50,284,546	33.60	8,991,089	1,830,960	5,811,807	16,629,156
20 Kliekhat	24,067,840	11,633,930	35,741,364	30.29	6,389,740	2,173,359	3,526,963	10,826,128
21 Lewis	46,069,951	7,107,926	53,147,967	38.11	15,367,478	2,666,623	2,708,830	20,234,067
22 Lincoln	49,751,432	12,216,958	61,968,390	39.62	16,716,386	2,483,329	4,767,056	24,180,065
23 Mason	13,575,206	519,690	14,124,896	44.27	5,597,548	452,196	248,359	6,258,073
24 Okanogan	15,375,212	1,645,954	17,021,166	42.61	5,349,683	1,201,095	7,232,719	17,950,376
25 Pacific	34,714,462	1,903,983	36,618,475	49.02	14,955,093	2,061,951	383,332	16,505,882
26 Pend Oreille	11,014,461	5,244,968	16,259,394	40.61	3,615,580	791,806	2,098,496	6,505,882
27 Pierce	195,629,888	15,605,374	215,239,262	51.38	82,678,891	17,986,803	10,073,239	110,738,363
28 San Juan	4,027,823	.....	4,027,823	36.62	1,092,912	382,077	.....	1,474,989
29 Skagit	37,205,506	9,108,648	46,374,154	31.02	2,901,325	1,839,823	2,844,114	14,835,262
30 Skamania	7,016,803	4,635,735	11,652,538	42.73	2,793,185	205,065	1,980,849	4,979,139
31 Snohomish	76,883,101	99,559,192	99,559,192	39.50	24,710,455	5,663,045	8,953,103	39,325,878
32 Spokane	253,850,571	36,811,406	290,661,977	42.16	91,330,365	15,603,035	15,519,687	122,548,088
33 Stevens	25,463,987	27,542,187	32,969,318	33.48	6,227,108	1,628,635	1,365,381	9,291,124
34 Thurston	25,699,242	7,400,076	32,969,318	43.43	9,267,848	1,819,903	3,213,850	14,331,031
35 Wahiakum	5,168,146	.....	5,168,146	40.14	1,717,170	357,824	.....	2,074,494
36 Walla Walla	60,051,160	15,101,099	75,152,259	41.64	21,146,301	3,858,912	6,988,097	31,293,406
37 Whitman	58,988,506	10,946,175	69,934,681	37.15	17,944,269	3,709,971	4,066,502	25,720,682
38 Yakima	70,607,369	31,722,482	102,329,851	40.36	24,428,960	4,017,443	12,831,443	41,268,144
39 Yakima	70,888,033	10,151,715	81,039,768	44.03	27,694,995	3,617,015	4,469,789	35,081,869
Totals	\$2,021,746,685	\$390,488,722	\$2,412,235,407	42.44	\$735,665,387	\$122,350,549	\$156,459,091	\$1,014,475,027

TABLE SHOWING MILEAGE AND VALUE OF STEAM AND ELECTRIC RAILROADS, WIRE MILEAGE AND VALUE OF TELEGRAPH LINES, AS SHOWN IN THE 1913 REPORT OF THE STATE BOARD OF TAX COMMISSIONERS; ALSO MILES OF IMPROVED AND UNIMPROVED HIGHWAYS AS SHOWN IN THE 1912 REPORT OF THE STATE HIGHWAY COMMISSIONER.

COUNTIES	Miles of main track and fractions	Miles of sidings and fractions	Total mileage and fractions	Actual value of real property	Actual value of personal property	Total actual value of railway property	Electric Railroads		Highways, Total mileage	Telegraph Lines	
							Mileage	Actual value		Wire mileage	Actual value
1 Adams	232.331	51.179	283.510	\$17,437,349	\$2,178,629	\$19,615,978		2,455.	650.68	\$5,118	
2 Asotin								317.			
3 Benton	156.996	33.187	190.183	13,114,197	1,071,661	14,285,858		857.	259.20	19,483	
4 Benthall	155.543	44.129	199.672	6,004,126	1,151,347	7,055,473		567.	169.86	12,748	
5 Blaine	82.759	33.786	116.545	6,944,833	813,174	7,758,007	13.587	684.1	257.75	21,596	
6 Chelan	18.773	2.417	21.190	107,657	45,900	153,557		191.	129.00	8,611	
7 Clark	84.648	30.541	115.189	5,617,847	901,916	6,519,763	14.163	2,100.	2.80	210	
8 Columbia	74.643	14.286	88.929	4,205,872	286,678	4,492,550		521.5	188.79	14,169	
9 Cowlitz	80.249	7.836	88.135	4,478,621	1,400,281	5,878,902		600.	509.33	35,315	
10 Douglas	80.734	9.811	90.535	3,317,731	362,728	3,680,459		1,955.7	74.72	5,608	
11 Ferry	104.979	21.326	126.305	2,293,070	250,069	2,543,169		814.2	416.76	31,278	
12 Franklin	174.124	54.676	228.800	18,311,672	1,431,338	14,743,010		501.	16.50	1,228	
13 Garfield	16.050	1.930	17.980	704,772	40,973	745,745		1,900.5	391.63	26,152	
14 Grant	212.539	31.138	243.677	11,846,215	1,596,956	13,443,171		198.7			
15 Island				802,063	160,000	962,063		244.			
16 Jefferson	26.400	1.963	27.663	3,621,425	5,380,677	87,022,102	251.264	1,746.	1,631.44	112,894	
17 King	479.700	299.360	779.060	31,621,425	3,358	17,533,228		485.	75.00	5,144	
18 Kittitas		0.234	0.234	14,484	2,483,355	17,643,799		802.	747.20	50,409	
19 Kittitas	169.951	88.164	258.115	15,079,693	489,579	16,438,272		1,615.6			
20 Klickitat	135.214	31.196	166.410	11,154,211	1,347,518	6,786,206	6.015	1,147.8	508.30	34,721	
21 Lewis	29.535	29.535	162.386	5,450,687	1,529,088	12,180,612		2,823.	498.04	36,346	
22 Lincoln	166.808	25.670	192.478	10,651,524	1,573,330	12,180,612		369.			
23 Mason	14.330	14.330	392.320	392,320	157,330	549,650		792.			
24 Okanogan	48.440	9.787	58.217	1,482,449	163,505	1,645,954		253.5	62.50	4,691	
25 Pacific	68.642	11.573	80.215	1,521,562	301,500	1,823,062	5.251	6,679	89.00	6,679	
26 Pend Oreille	85.540	19.520	105.060	616,490	5,238,254	5,854,744		966.7	838.23	58,928	
27 Pierce	292.337	151.806	404.143	11,885,256	2,516,578	14,401,834	142.570	5,144.012			
28 San Juan								197.			
29 Skagit	130.716	49.313	180.029	7,386,400	1,072,687	8,459,087	24.192	685.	413.80	29,085	
30 Skamania	40.577	7.249	47.826	4,461,410	174,325	4,635,735		131.			
31 Snohomish	295.393	101.617	397.010	17,196,911	2,560,623	19,757,534	38.800	1,214.	620.19	43,849	
32 Spokane	321.470	157.997	479.467	23,733,501	2,789,538	26,523,039	278.296	2,982.8	1,137.22	82,307	
33 Stevens	121.306	20.315	141.624	3,673,084	405,116	4,078,200		1,430.			
34 Thurston	150.748	42.986	198.734	5,770,271	1,315,173	7,085,444	5.988	460.	477.13	33,302	
35 Wahkiakum								65.			
36 Walla Walla	270.462	40.058	310.510	13,314,387	1,349,346	14,663,733	20.000	1,019.	532.96	41,469	
37 Whitman	132.963	45.351	178.317	7,111,341	8,949,979	84,518		376.65	302.55	19,425	
38 Whitman	423.653	75.424	25,602,963	2,324,259	2,324,259	27,923,192		2,518.2	972.65	73,260	
39 Yakima	139.413	55.114	214.527	8,461,195	1,362,738	9,823,933	30.313	2,013.75	339.38	25,515	
Totals	5,101.498	1,648.172	6,749.670	\$301,372,863	\$41,158,240	\$342,531,103	978.691	\$9,062.05	\$17,486.45	\$88,110	

LIST OF COUNTIES, CITIES AND INCORPORATED TOWNS AND THEIR POPULATION AS GIVEN BY THE CENSUS REPORT OF 1910; ALSO THE NAMES OF ALL COMMERCIAL ORGANIZATIONS REPORTED FOR 1913 IN BOTH INCORPORATED AND UNINCORPORATED COMMUNITIES; ARRANGED ACCORDING TO COUNTIES.

The organizations listed will gladly send further information whenever requested, regarding their respective communities. Sample of address: Commercial Club, Othello, Washington.

The * indicates county seat, the dagger † means unincorporated. Population figures in parenthesis () are local estimates. Where no population figures are given no estimates were received. No commercial body was reported unless specifically mentioned after name of each municipality.

Population for entire state..... 1,141,990

	<i>Population</i>		<i>Population</i>
ADAMS COUNTY	10,920	Krupp, Commercial Club.....	(130)
Cunningham, City Council.....	153	Quincy, Commercial Club.....	264
Hatton	161	†Soap Lake, Commercial Club.....	(250)
Lind	831	†Trinidad, Commercial Club.....	(40)
Othello, Commercial Club.....	(600)	Warden, Commercial Club.....	(250)
*Ritzville, Commercial Club.....	1,859	Wilson Creek, Commercial Club..	405
Washtucna	300	ISLAND COUNTY	4,704
ASOTIN COUNTY	5,831	*Coupeville, Commercial Club....	310
*Asotin, Commercial Club.....	820	Langley, Commercial Club.....	(350)
Clarkston, Chamber of Commerce	1,257	†Oak Harbor, Commercial Club....	500
BENTON COUNTY	7,937	JEFFERSON COUNTY	8,337
†Hanford, Commercial Club.....	(200)	†Irondale, Chamber of Commerce..	(300)
Kennewick, Commercial Club....	1,219	*Port Townsend, Commercial Club	4,181
*Prosser, Commercial Club.....	1,298	†Quilcene, Commercial Club.....	(750)
Richland, Commercial Club.....	(800)	KING COUNTY	284,638
†White Bluffs, Commercial Club..	(500)	†Alгона	
CHEHALIS COUNTY	35,590	Auburn, Business Men's Club....	957
Aberdeen, Chamber of Commerce.	13,660	Bothell, Commercial Club.....	599
Cosmopolis, Chamber of Commerce	1,132	†Cove, Improvement Club.....	(125)
Elma, Commercial Club.....	1,532	†Des Moines, Commercial Club.....	(500)
Hoquiam	8,171	Duvall, Commercial Club.....	(550)
Commercial Club.....		Enumclaw, Commercial Club.....	(1,200)
Grays Harbor Development Club.		Issaquah, Commercial Club.....	628
*Montesano, Chamber of Commerce	2,488	Kent, Commercial Social Club....	1,908
Oakville, Development Association	465	†Kennedydale, Citizens Association..	(600)
Ocosta	127	Kirkland, Chamber of Commerce,	
†Quinalt, Improvement Club....		East Side Commercial Club... 532	
†Washport, Commercial Club.....	(250)	Northend, Commercial Club... 299	
CHELAN COUNTY	15,104	Pacific	413
Cashmere, Commercial Club.....	625	†Portage, Vashon Island Commer-	
Chelan, Commercial Club.....	682	cial Club	(50)
†Chelan Falls, Commercial Club..	(44)	Ravensdale	(325)
Lakeside	222	Redmond	(350)
Leavenworth, Commercial Club..	1,551	Renton, Chamber of Commerce..	2,740
†Maplecreek, Commercial Club... (100)		†Richmond Beach, Improvem't Club	(600)
*Wenatchee, Commercial Club....	4,050	*Seattle	237,194
CLALLAM COUNTY	6,755	The New Chamber of Commerce.	
*Port Angeles, Commercial Club..	2,286	Commercial Club.....	
Sequim, Commercial Club.....	(400)	Rainier Valley Commercial Club.	
CLARKE COUNTY	26,115	Women's Commercial Club.....	
Camas, Commercial Club.....	1,125	Salmon Bay Improvement Club.	
La Center, Commercial Club.....	(400)	Skykomish	238
Ridgefield, Commercial Club....	(500)	Snoqualmie	279
*Vancouver, Commercial Club....	9,300	Tolt, Commercial Club.....	(500)
Washougal, Commercial Club....	456	Tukwila, Women's Improvement	
Yacolt	435	Club	361
COLUMBIA COUNTY	7,042	KITSAP COUNTY	17,647
*Dayton, Commercial Club.....	2,389	Bremerton, Commercial Club....	2,993
Starbuck	761	†Brownsville, Improvement Club..	(250)
COWLITZ COUNTY	12,561	†Burley, Improvement Club.....	(125)
Castle Rock, Booster Club.....	998	Charleston, Commercial Club....	1,062
Kalama, Commercial Club.....	816	†Manette, Improvement Ass'n....	(600)
Kelso, Commercial Club.....	2,039	*Port Orchard, Commercial Club..	682
Woodland, Commercial Club.....	384	Poulsbo	364
DOUGLAS COUNTY	9,227	†Rollingbay, Progressive Club....	(400)
Bridgeport, Commercial Club... 431		KITTITAS COUNTY	18,561
Mansfield	(350)	Cle Elum, Commercial Club....	2,749
*Waterville, Commercial Club....	950	*Ellensburg, Chamber of Commerce	4,209
FERRY COUNTY	4,800	†Kittitas, Commercial Club.....	(225)
†Orient, Improvement Club.....	(200)	Roslyn	3,126
*Republic, Commercial Club.....	999	South Cle Elum	(500)
FRANKLIN COUNTY	5,153	KLICKITAT COUNTY	10,180
Connell, Commercial Club.....	(500)	*Goldendale, Fruit & Produce As-	
Kahlotus	132	sociation	1,203
*Pasco, Chamber of Commerce... 2,083		†Guler, Trout Lake Commercial	
GARFIELD COUNTY	4,199	Club	(400)
Pataha	176	†Laurel, Development Club.....	(50)
*Pomeroy, Commercial Club.....	1,605	†Lyle, Commercial Club.....	(175)
GRANT COUNTY	8,698	White Salmon, Commercial Club.	682
†Beverly, Commercial Club.....		LEWIS COUNTY	32,127
Coulee City, Commercial Club... 276		Centralia, Commercial Club....	7,311
*Ephrata, Commercial Club.....	323	*Chehalis, Citizens' Club.....	4,507
Hartline	237	†Mineral, Commercial Club.....	(350)

	<i>Population</i>		<i>Population</i>
Morton, Commercial Club.....	(400)	Marysville	1,230
†Mossyrock, Commercial Club....	(150)	Monroe, Commercial Club.....	1,552
Napavine	(280)	†Mukilteo, Commercial Club.....	(700)
Pe Ell, Commercial Club.....	838	Snohomish, Commercial Club....	3,244
Toledo, Commercial Club.....	375	Stanwood, Commercial Club.....	544
Vader, Little Falls Commercial Club	(631)	†Startup, Improvement Association	(200)
†Vance, Commercial Club.....	(100)	Sultan, Commercial Club.....	576
Winlock, Commercial Club	1,140	SPOKANE COUNTY	139,404
LINCOLN COUNTY	17,539	Cheney, Commercial Club.....	1,207
Almira, Commercial Club.....	368	Deer Park, Commercial Club....	875
Creston, Commercial Club.....	308	Fairfield, Commercial Club.....	308
*Davenport, Booster Club.....	1,229	Hillyard, Chamber of Commerce.	3,276
Harrington, Commercial Club....	661	Latah	339
Odessa, Commercial Club.....	885	†Meadow Lake, Commercial Club.	(500)
Reardan	527	Medical Lake, Commercial Club..	1,730
Sprague, Commercial Club.....	1,110	†Opportunity, Commercial Club...	
Wilbur, Publicity Club.....	757	Rockford, Business Men's Club..	663
MASON COUNTY	5,156	Spangle, Commercial Club.....	299
*Shelton, Commercial Club.....	1,163	*Spokane, Chamber of Commerce.	104,402
OKANOGAN COUNTY	12,887	Waverly, Commercial Club.....	318
Brewster, Booster Club.....	296	STEVENS COUNTY	25,297
†Chesaw, Commercial Club.....	(200)	Cewelah, Commercial Club.....	823
*Conanully, Commercial Club....	357	†Clayton, Commercial Club.....	(350)
†Methow, Commercial Club.....	(50)	*Colville, Chamber of Commerce..	1,512
Okanogan, Commercial Club.....	611	†Gifford, Commercial Club.....	(150)
Omak, Commercial Club.....	(500)	†Hunters, Columbia Valley Com- mercial Club	(300)
Oroville, Development League...	495	Kettle Falls, Commercial Club...	377
Pateros, Commercial Club.....	(316)	Marcus, Commercial Club.....	650
Riverside, Commercial Club.....	(250)	Northport	476
†Tonasket, Commercial and Good Roads Club	(200)	Springdale, Commercial Club....	251
Twisp	227	THURSTON COUNTY	17,581
†Winthrop, Commercial Club.....	(100)	Bucoda	(350)
PACIFIC COUNTY	12,532	*Olympia, Chamber of Commerce.	6,996
†Chinook	(450)	†Rochester, Commercial Club....	(800)
Ilwaco, Commercial Club.....	664	Tenino, Commercial Club.....	1,038
†Long Beach, Commercial Club...	(300)	Tumwater	490
Raymond, Commercial Club.....	2,450	WAHKIAKUM COUNTY	3,285
*South Bend, Commercial Club...	3,023	*Cathlamet, Commercial Club....	352
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Du Pont	(500)	*Bellingham	24,298
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†Kapowsin, Improvement Club....	(600)	Kulshan Club.	
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