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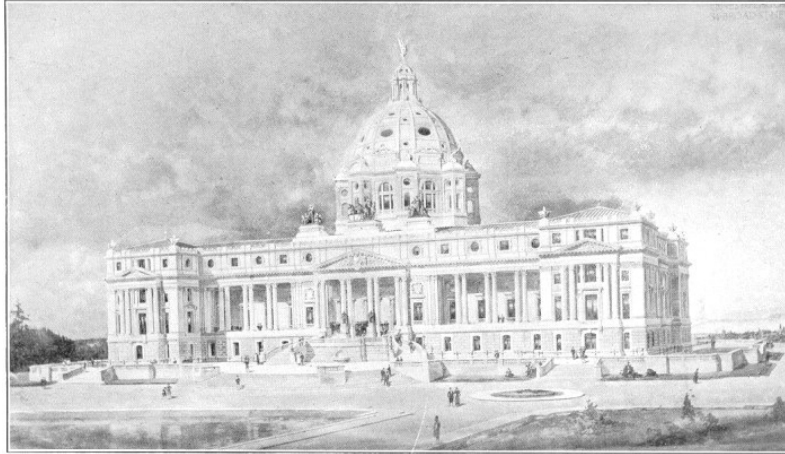
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*** START OF THE PROJECT GUTENBERG EBOOK A REVIEW OF THE RESOURCES AND INDUSTRIES OF THE STATE OF WASHINGTON, 1909 ***



Frontispiece.—WASHINGTON'S NEW CAPITOL BUILDING.

(Photo Engraved from a Drawing.)

Construction of the New Capitol to be Erected on the Foundation Already Laid at Olympia Was Authorized at the 1909 Session of the Legislature.

**A REVIEW OF THE RESOURCES
AND INDUSTRIES
OF
WASHINGTON
1909**

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PUBLISHED UNDER AUTHORITY OF THE LEGISLATURE, FOR GRATUITOUS DISTRIBUTION BY THE BUREAU OF STATISTICS, AGRICULTURE AND IMMIGRATION

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

GEO. M. ALLEN,
Deputy Commissioner,

OFFICE OF THE
BUREAU OF STATISTICS, AGRICULTURE AND IMMIGRATION,
OLYMPIA, WASHINGTON, JUNE 1, 1909.

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To His Excellency M. E. Hay, Governor of Washington:

We have the honor to transmit herewith the Biennial Report of the Bureau of Statistics, Agriculture and Immigration for the year 1909, dealing with the various resources and industries of Washington.

Very respectfully,

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

GEO. M. ALLEN,
Deputy Commissioner,

INTRODUCTION

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OFFICE OF THE

This publication represents an effort to place before the general public, and particularly the visitors at the Alaska-Yukon-Pacific Exposition, a brief description of the principal resources and industries of the State of Washington.

Its imperfections may be accounted for largely by reason of the fact that funds for the purpose did not become available until the first day of April of the current year. This necessitated unusual haste in securing and preparing the material upon which the pamphlet is based. However, we have endeavored to deal conservatively and fairly with the various subjects under consideration, and to present all the information possible within the limits of the space at our disposal.

Our purpose has been to supply the reader with an outline of the salient facts which account for the marvelous growth and development which the commonwealth is enjoying. To go largely into detail within the scope of a pamphlet of this size would be, manifestly, an impossibility. We might readily exhaust our available space in dealing with one industry or in describing a single county. Details, therefore, have been necessarily and purposely avoided.

We have sought to bring the entire state within the perspective of the reader, leaving him to secure additional facts through personal investigation. Along this line, attention is called to the list of commercial organizations and local officials presented in the statistical portion of this report. Nearly all the larger communities of the state maintain organizations, equipped to supply detailed facts relating to their particular locality. Much valuable information may be obtained on application to these organizations or to local officials.

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An expression of appreciation is due those who have assisted us by supplying information and collecting photographs for use in this publication. Without such aid the completion of the pamphlet would have been materially delayed.



Plate No. 1.—Fruit Farm Adjoining Town of Asotin, Asotin County.

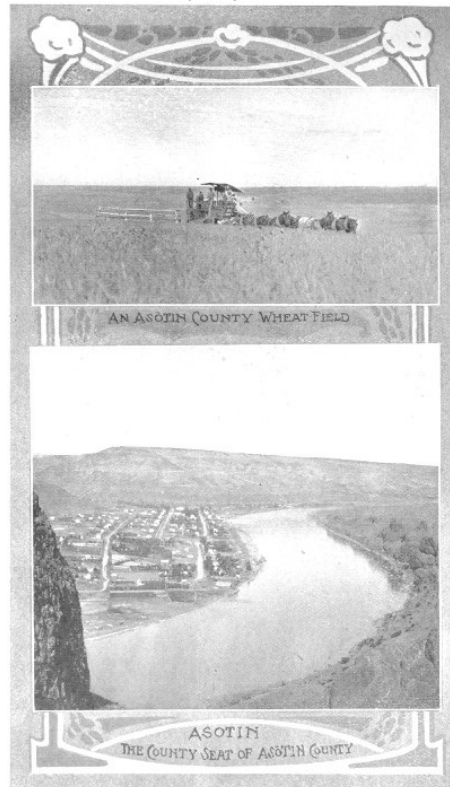


Plate No. 2.—Asotin County Views.

GENERAL OUTLINE OF THE RESOURCES AND INDUSTRIES OF WASHINGTON.

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The State of Washington as now constituted, was, prior to 1853, a portion of the Territory of Oregon. During the year mentioned, a new territory was carved from the old Oregon boundaries, which the statesmen of that day evidently believed was marked by destiny for the achievement of great things, for they conferred upon it the name of Washington.

That our state, thus highly distinguished, has already demonstrated itself worthy of the exalted name, so happily bestowed upon it, the most carping critic must admit. With a population now reaching up toward a million and a half, and with all the forces that make for industrial, commercial and agricultural supremacy in full swing, and gathering new momentum yearly, Washington is moving onward and upward toward a position among the very elect

of our great sisterhood of states.

As briefly as the story may be told, the fundamental facts which underlie the marvelous advancement made by the state during recent years will be set forth in the pages of this pamphlet.

NATURAL DIVISIONS OF THE STATE.

By virtue of its varied topography, Washington is naturally divided into a number of districts or sections, each possessing its own particular characteristics.

Olympic Peninsula.

The first of these districts may be described as consisting of that section of the state including the Olympic mountains and extending westward from them to the Pacific ocean. Within the limits of this Olympic peninsula, as it is ordinarily termed, there is standing one of the largest and most valuable tracts of virgin timber yet remaining in the United States.

Puget Sound Basin.

The second district includes the territory lying between the Olympic and Cascade mountains, the chief physical feature of which is the great inland sea known as Puget Sound. The shore front of this important waterway exceeds 2,000 miles, and its length is broken by numerous bays and harbors, upon which are located Seattle, the state's metropolis, and the growing cities of Tacoma, Everett, Bellingham and Olympia. The climate of this section is mild in winter and cool in summer, extremes in either season being practically unknown. Deep sea shipping enters the port of Puget Sound from every maritime country on the globe, and the industrial and commercial interests of this section are expanding with extraordinary rapidity.

The Cascade Mountains.

The Cascade mountains constitute the third of these natural divisions. This range extends in a broken line across the width of the state, at a distance of about 120 miles from the Pacific ocean. These mountains, their rugged peaks capped with a mantle of eternal snow, their sides covered with a heavy timber growth, and their valleys carrying numerous sparkling mountain streams, with illimitable possibilities for the development of power, are one of the important assets of the state, the value of which has not as yet even been estimated. The mineral wealth of the Cascades, only a slight knowledge of which has as yet been secured, will ere long contribute largely to the prosperity of the state, while the more moderate slopes of the mountains serve a valuable purpose for the pasturage of numerous flocks and herds.

Okanogan Highlands.

The fourth district is known as the Okanogan highlands, and occupies that portion of the state lying north of the Columbia river and east of the Cascade mountains. This section of the state contains valuable timber and mineral wealth in addition to presenting many attractive opportunities to the farmer and horticulturist. It has been hampered thus far by lack of adequate transportation facilities, and for this reason land may be had at exceptionally reasonable figures.

Columbia River Basin.

The Columbia river basin is by far the largest natural division of the state, and, generally speaking, includes the section drained by that river and its tributaries. Within the confines of this district are the great irrigated and grain-growing sections of the state, which are a source of constantly increasing wealth.

This great "Inland Empire," as it has come to be called, has made thousands of homeseekers independent, and is largely responsible for the rise to commercial greatness of the splendid city of Spokane. Other cities of growing importance lying within the Columbia river basin are Walla Walla, North Yakima, Ellensburg and Wenatchee, while scores of smaller communities are annually adding to their population with the continued development of the districts of which they are the immediate distributing centers.

The Southeast.

The Blue mountains form the chief natural characteristic of the extreme southeastern section of the state, which constitutes the sixth division. This is comparatively a small district, but one that is highly favored by climatic and soil advantages, and it is well timbered and watered.

The Southwest.

The southwest is the seventh and final division of the state. It comprises an extensive district, fronting on the Columbia river and the Pacific ocean. It is heavily wooded and its chief industries are based upon its timber wealth. The taking and canning of fish and oyster culture are also important industries, while fruit growing and general farming are carried on upon a constantly increasing scale.

NATURAL RESOURCES OF WASHINGTON.

Probably few other states in the Union excel Washington in the great variety, abundance and value of the natural gifts prepared and ripe for the hand of man within its borders. Preceding races were content to leave its wealth to us, being themselves satisfied to subsist upon that which was at hand and ready for consumption with no effort but the effort of taking. The impenetrable forests were to them a barrier to be let alone. For the minerals within the mountains they had no use, and to gather wealth from the tillage of the soil needed too much exertion. Fish and game and fruits all ready to gather were all they sought, and the state had enough of these to attract and hold a large population. But the vision of the white man was different. His eye scanned the peaks of the Cascades with its great eternal white Rainier having its head thrust up among the clouds, and he realized that around and beneath them must be a vast hoard of the precious metals. His eye caught the dazzling grandeur of the white-capped Olympics, but he realized that they held in reserve something more substantial to his needs than scenery and hunting grounds. The impenetrable barriers of the forest-covered foothills were to him a treasure worth the struggle for an empire. He scanned the glittering waters of the bays and inlets of Puget Sound and its great open way to the Pacific Ocean and realized that it meant more to him and to his children than a place to catch a few fish. He viewed the vast plains of "barren" land within the great winding course of the Columbia river and believed it worth more than pasturage for a few bands of ponies.

The thousand tumbling water-falls that hastened the course of the rivers toward the sea meant more than resting places for the chase. No wonder the hardy pioneers whose vision saw the grandeur of Washington and comprehended its meaning dared a mighty journey, vast hardships and trying and dangerous hazards to save this empire to Uncle Sam. Washington, saved by the energy and foresight of a few, has become the delightful home of a million and more, and their possession is one that Alexander or Napoleon would have coveted, had they known.



Plate No. 3.—Chehalis County Timber.

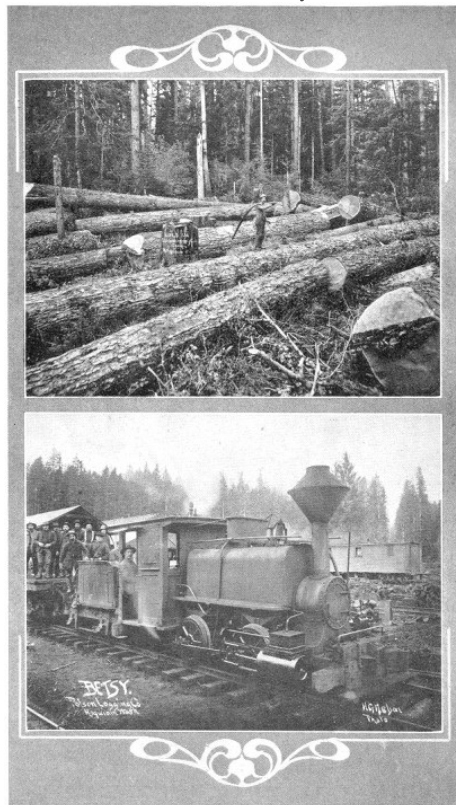


Plate No. 4.—The Logging Industry in Chehalis County.

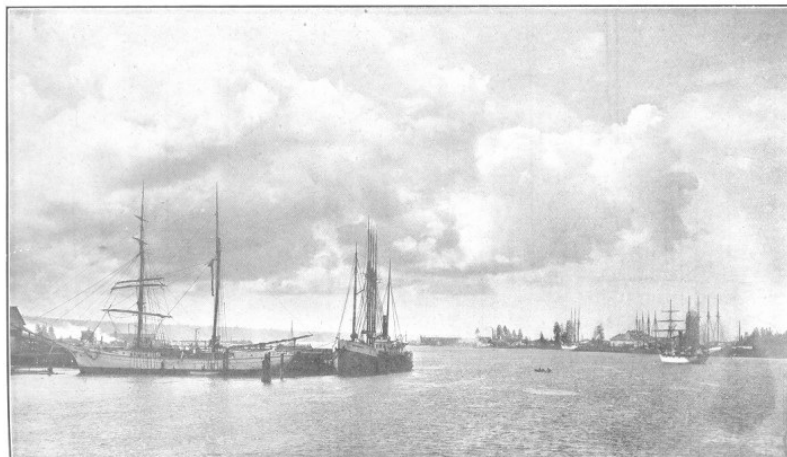


Plate No. 5.—View of Harbor, Aberdeen, Chehalis County.

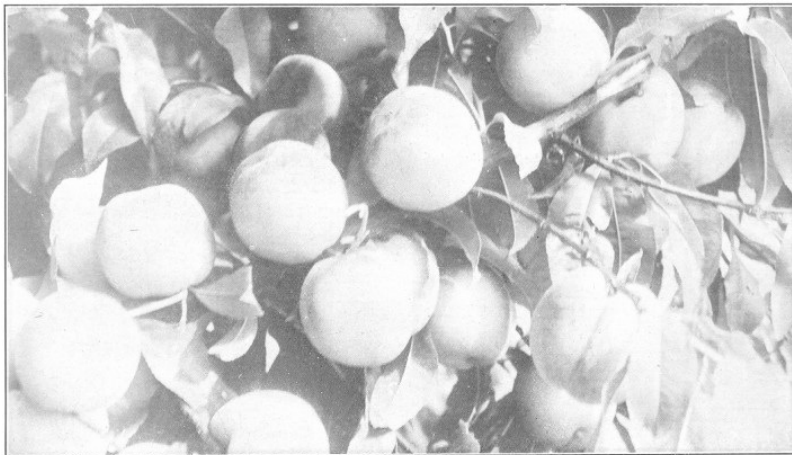


Plate No. 6.—Limb Cut from a Chelan County Peach Tree.

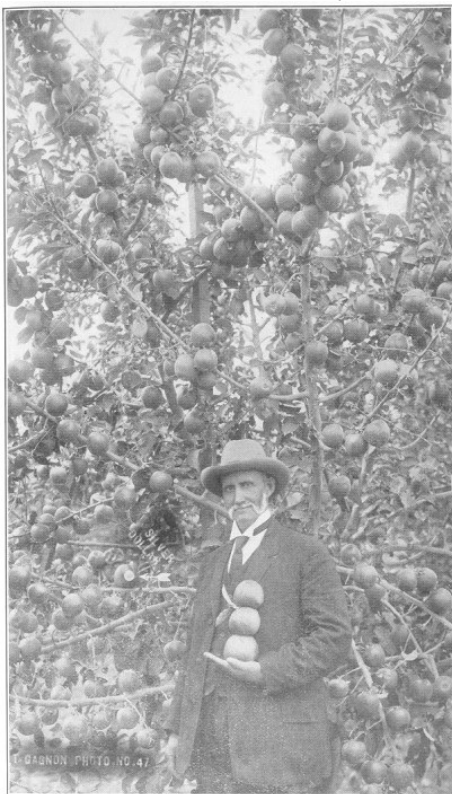


Plate No. 7.—Six-Year-Old Winesap Apple Tree on Farm of Blackmont Bros., Chelan County.

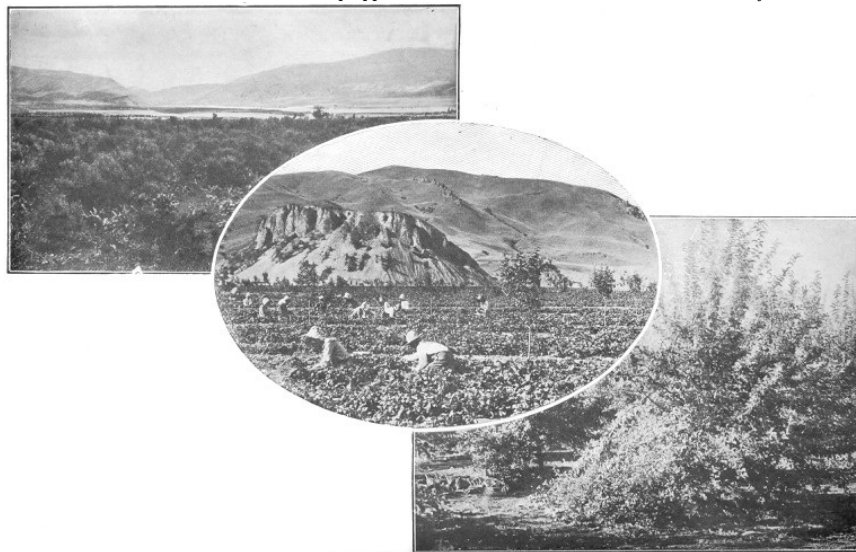


Plate No. 8.—Farm of Wm. Turner, Chelan County. From Sage Brush to Bearing Orchard, Showing How Living Is Made While Orchard Is Coming Into Bearing.

FORESTS.

From British Columbia to the majestic Columbia river and from the Cascade mountains westward to the ocean a vast forest of magnificent timber stretches out over mountain and hill and valley, covering the whole landscape of western Washington in a mantle of living green. The majestic fir trees, which, as small evergreens, adorn the lawns of other climes, here stretch their ancient heads 300 feet heavenward and give the logger a chance to stand upon his springboard and, leaving a fifteen foot stump, cut off a log 100 feet in length and 7 feet in diameter free from limbs or knots. Side by side with these giants of fir are other giants of cedar, hemlock and spruce crowded in groups, sometimes all alike and sometimes promiscuously mingled, which offer to the logger often 50,000 feet of lumber from an acre of ground.

But these great forests of western Washington are not all the forests within the state. The eastern slope of the Cascade mountains well down toward the lands of the valleys is mostly covered with timber. A belt from 30 to 50 miles wide stretching clear across the north boundary of eastern Washington is mostly a forest, while a large area in the southeastern corner of the state, probably 24 miles square, is also forest covered.

To estimate the amount of timber which can be cut from these vast forest areas is difficult; estimates are not accurate, yet it is probable that the lumber made will in time far exceed any estimate yet placed upon this chief source of the wealth of the State of Washington. Of the fir the estimate has been made that shows still standing enough timber to make 120 billion feet; for the cedar the estimate is 25 billion feet, while the same amount of 25 billion feet is credited to hemlock; 12 billion feet of spruce are claimed, 12 billion feet of yellow pine and probably 6 billion feet of other woods, including maple, alder, oak, yew, ash and many others, together forming the great mass of 200 billion feet of lumber. Where forest areas are cut off, the sun and air at once start to life seeds which lie dormant in the shade and a new crop at once starts and the old ground is in a few years reforested in nature's prodigal way, a thousand seeds sprouting and growing where only one giant can ultimately stand.

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Of these timbers, the fir, largest in quantity, is also largest in usefulness. For bridge work, shipbuilding, the construction of houses, etc. it is unsurpassed. Cedar is lighter and more easily worked and for shingles chiefly and many other special uses is superior. Spruce is fine grained, odorless and valuable for butter tubs, interior finish, shelving, etc. The hemlock is valuable not only for the tannin of its bark, but as a wood for many purposes is equal to spruce. The yellow pine, where it is plentiful is the main wood used in house construction and for nearly all farm purposes. The yellow pine is the chief timber in all eastern Washington. The harder woods, maple, alder, ash, etc., are used where available in furniture construction and for fuel, as are also all the other woods.

COAL.

Not content with covering half the surface of the state with forests for fuel, the Creator hid away under the forests an additional supply of heat and power sufficient to last its future citizens an indefinite period. The white man was not slow to find and locate the coal measures in many counties, notably in Kittitas, King, Pierce, Lewis, Whatcom and Thurston, and to put it to the task of driving his machinery. The coal measures of these counties are of vast extent, and, although little developed yet, there are 3,000,000 tons of coal mined annually in Washington. Other counties are known to have coal measures beneath their forests, but as yet they have not been opened up for commerce.

The coal already mined includes both lignite and bituminous varieties and furnishes fuel for the railroads, steamboats and power plants, giving very satisfactory results. Much of the bituminous coal makes an excellent article of coke and provides this concentrated carbon for the various plants about the state engaged in smelting iron and other metals.

The fixed carbon of the coal ranges from 48 to 65 per cent. and the total values in carbon from 64 to 80 per cent. and the ash from 3 to 17 per cent. The coal measures underlie probably the great bulk of the foothills on both sides of the Cascades and some of the Olympics, the Blue mountains of the southeast and some of the low mountains in the northeastern part of the state.

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Besides these coals already mentioned, it is known that veins of anthracite coal exist in the western part of Lewis county, the extent and value of which have not been fully determined, and, owing to the absence of transportation, are not on the market.

MINERAL ORES.

The general topography of the state suggests at once the probability of deposits of ores of the precious metals, and the cursory prospecting already done justifies the outlook. Practically the entire mountain regions are enticing fields for the prospector. Substantial rewards have already been realized by many who have chanced the hardships, and there are now in operation many mining enterprises which are yearly adding a substantial sum to the output of the wealth of the state. The ores occur chiefly in veins of low grade and great width and known as base on account of the presence of sulphur, arsenic and other elements compelling the ores to be roasted before smelting.

There are, however, some high grade ores in narrow fissures and in a few localities free milling ores and placer deposits are found. In most cases the free milling ores are the result of oxidation and will be found to be base as water level is reached in the mining process.

Mining of precious metals is being prosecuted in Whatcom, Skagit, Snohomish, King, Pierce, Lewis, Skamania, Cowlitz, Okanogan, Chelan, Kittitas, Yakima, Klickitat, Ferry and Stevens counties.

Of the metals the mines of the state are producing gold, silver, lead, copper, quicksilver, zinc, arsenic, antimony, molybdenum, nickel, cobalt, tungsten, titanium, bismuth, sulphur, selenium, tellurium, tin and platinum.

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There are also iron mines, and quarries of marble, granite, onyx, serpentine, limestone and sandstone—beds of fire clay, kaolin, fire and potter's clays, talc and asbestos and many prospects of petroleum.

Mining is suffering for the lack of transportation for the low grade ores, but prospects are excellent for relief in this regard in the near future. The era of wildcat exploitation has been relegated to the past and legitimate mining is now getting a firmer hold in the state, and we look for results within the next five years which will astonish many who think themselves well informed.

FISHERIES.

A glance at the map of the state will disclose a remarkable combination of salt and fresh waters within the jurisdiction of the state of such a character as to amaze one not familiar with it, but learned in the habits of the finny tribe in general.

The ocean is the great feeding ground. Out of its mysterious depths the millions of fish come into fresh waters fat and rich from the salt water vegetation.

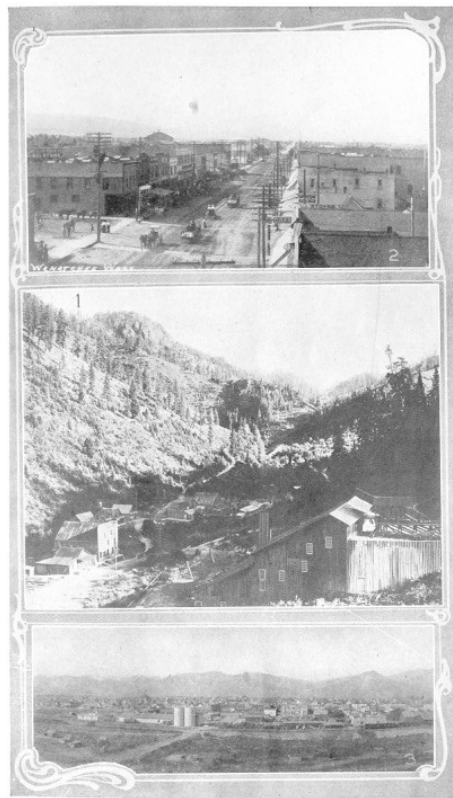


Plate No. 9.—Chelan County Views.



Plate No. 10.—Farm and Dairy Scene Common to Clallam County.

The great Columbia river in the south, Willapa harbor, Grays harbor, the majestic straits of Fuca and the equally majestic straits of Georgia on the north are all great open highways from the sea, not only for merchandise laden ships, but for myriads of salt water food fishes which annually traverse their bottoms. Into these open mouths flows a great network of fresh water rivers and streams, draining the entire area of the state and providing the spawning waters for the fishes from the sea not only, but for millions of strictly fresh water fishes. Not only these, but late years have proven the shore waters of the state to produce also great numbers of oysters, clams, crabs and shrimp. Nor is this all, because the proximity of the state to the ocean gives it a great advantage in profiting from the fishing industry among that class of the finny hosts who refuse to leave their salt water homes. So that from the whales of Bering sea to the speckled beauties that haunt the mountain streams, through the long list of delectable salt and fresh water food, the fisherman of Washington has an enticing and most profitable chance to satisfy his love of sport and adventure not only, but to increase his bank account as well.

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SOILS AND LANDS.

Washington is particularly blessed in having a diversity of soils, all admirably adapted to some department of agriculture and giving the state the opportunity of great diversity in the occupations of its people. The central plateau of eastern Washington, made up of level stretches and undulating hills, is all covered with a soil composed of volcanic ash and the disintegration of basaltic rocks which, together with some humus from decayed vegetation, has made a field of surpassing fertility for the production of the cereals with scant water supply; but under the magic touch of irrigation it doubles its output and makes of it not only a grain field but an orchard and garden as well. Underneath the forests of eastern Washington, along the northern border of the state and in its southeastern corner there is added a large proportion of clay, a necessary element for perpetual pasturage, and widening the field for fruit growing.

In western Washington, upon the bench lands and on the hills and foothills the forests are supported upon a gravelly soil, intermixed with a peculiar shot clay which disintegrates with successive tillage so that when the forests are removed the soil becomes ready for all the grasses and grains and fruits. In the valleys more silt and humus make up the soil, and when the cottonwoods, alders and maples are gone there is left a soil deep and strong for the truck gardener and general farmer, which will endure successive tillings for ages. At the deltas of the rivers are large reaches of level lands, some of which have to be diked to prevent the overflow of the tides, which have had added the fertility of the salts of the ocean and are probably the richest lands in the state fit for cereals and root crops, not omitting the bulbs which have made the deltas of Holland famous. There are also extensive peat beds which, scientifically fertilized, will produce abundant returns to the intelligent farmer.

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LANDS.

The lands of the state are owned, some by Indian tribes, some by the general government, some by the state, but largely by individual citizens and corporations.

Indian Lands.

Of the Indian lands most of them have been "allotted" and the balance will soon be thrown open to settlement. Of these the largest in western Washington are the Quinault and Makah reservations and in eastern Washington the great Colville reservation. This latter will in time make two or three counties of great value, being adapted to general farming, dairying, fruit growing and mining, and having an abundance of forest area for fuel and building purposes. Those in western Washington are timbered areas at present.

Government Lands.

The remnant of government lands are chiefly among the more barren areas of eastern Washington and the poorer forest lands of western Washington. The method of obtaining title to government lands is generally known, and if not, can be obtained from the general land offices, one of which is in Seattle, Olympia, Vancouver, Spokane, Waterville, Walla Walla and North Yakima. The government still holds title to nearly six million acres, and, while the best has been acquired by others, the diligent searcher can still find homesteads and desert claims worth energy and considerable expense to secure.

State Lands.

A recent estimate of the value of the state lands still in possession makes them worth 56 million dollars. They include nearly 3,000,000 acres, a large portion of which is heavily timbered. These lands may be obtained from the state through the state land commissioner by purchase outright on very easy terms, or may be leased for a term of five to ten years at a low rental, the lessee receiving virtually a first right to purchase.

These state lands are as good as any in the state and offer to the homeseeker a splendid opportunity for a start.

In this state there are also numerous tide lands, oyster lands, and shore lands to be obtained at various prices, both from the state and from private individuals who have already acquired title from the state.

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WATER POWER.

It is probable that no state in the Union is better equipped for creating power than the State of Washington. Numerous waterfalls of magnitude are already successfully utilized. Among these the most noted are the Spokane falls, capable of producing 400,000 horse power; the Snoqualmie falls, with a sheer descent of 250 feet, with a capacity of 100,000 horse power; Puyallup river at one place is furnishing about 20,000 horse power; the Cedar river has a capacity of 50,000 horse power; the Nooksack falls with 15,000 horse power already generated; Tumwater falls with 4,000 horse power, with Chelan falls, the Meyers falls and the falls of Asotin creek all in use to limited extent. The waters of the Yakima river are also in use in part for power purposes, but more extensively for irrigation. Besides these there are many minor streams already harnessed.

But the unused water powers of the state far exceed that portion now developed. All its streams are mountain streams, excepting perhaps, the Snake and Columbia rivers. These mountain rivers in a flow of 50 to 200 miles make a descent of 2,000 to 5,000 feet in reaching sea level, providing innumerable opportunities to use the falls already created by nature, or to divert the waters and produce artificial falls.

No heritage of the state is of greater value and none more appreciated than this water power. Since the introduction of electricity as a lighting and motive force, its creation by water power looms into immense importance. The exhibition of its achievements to be seen in Washington today is amazing to the men whose vision of light and power was first with the tallow dip and four-footed beasts, and later with kerosene and steam. Electricity, created by our water falls, lights our cities and farm homes, draws our street cars and some railroad cars—pushes most of the machinery used in manufactories, to the great satisfaction and profit of our citizens.

GAME.

The State of Washington was once a paradise for the sportsman in its every corner. Its desert lands were full of jack rabbits and sage hens; over its mountains and foothills roamed herds of elk, mountain goats, deer, and many bear, cougar and wild cats. In its timbered valleys were pheasants and grouse in plenty. Upon its waters and sloughs the wild ducks and geese were in vast flocks, while its waters teemed with salmon in many varieties, and several families of the cod tribe, sole, flounders, perch, mountain trout and other fish.

While these conditions cannot now be said to exist in full, yet at certain seasons, and in some places, the same game, animals, birds and fishes are in abundance, and the sportsman, while he may not have his "fill," may satisfy a reasonable amount of his craving for the excitement of the frontier. The state has deemed it wise to restrict the time and place within which its game can be taken and the amount a single individual shall kill. These regulations suffice partly to preserve the game from extinction and help replenish the state's treasury, and are considered wise and reasonable.

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SCENERY.

If Washington is mighty in forest possession, provided with fuel for centuries in its coal beds, rich in precious metals, with great open waterways full of fish roads from the ocean and millions of fishes in its inland waters, with game upon its thousand hills and its vast plains loaded with waving grains and red with luscious fruits, still its crowning glory is its matchless scenery.

Towering above the clouds, with its head crowned with eternal snows, its sides forever glistening with icy glaciers till their feet touch the green tops of its foothills, near the center of the state, stands in imposing grandeur the highest mountain of the states—grand, old Mount Rainier.



Plate No. 11.—Fish Cannery at Port Angeles, Clallam County.



Plate No. 12.—A Forest Scene in Clallam County.

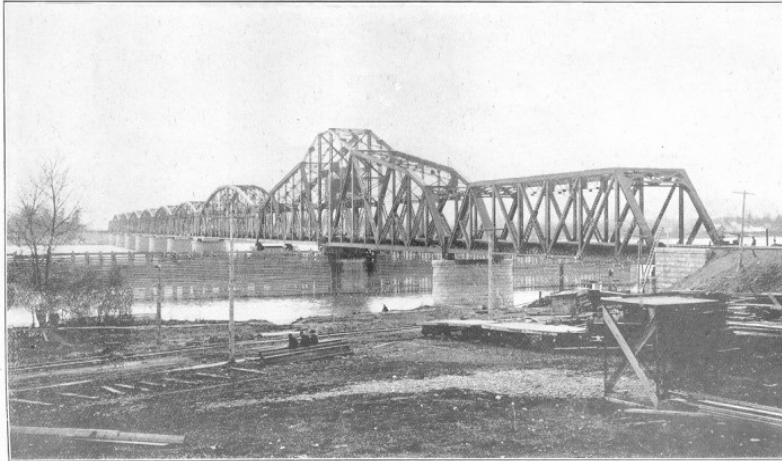


Plate No. 13.—North Bank Bridge Over the Columbia River at Vancouver, Clarke County.



Plate No. 14.—U. S. Army Post, Vancouver, Clarke County.

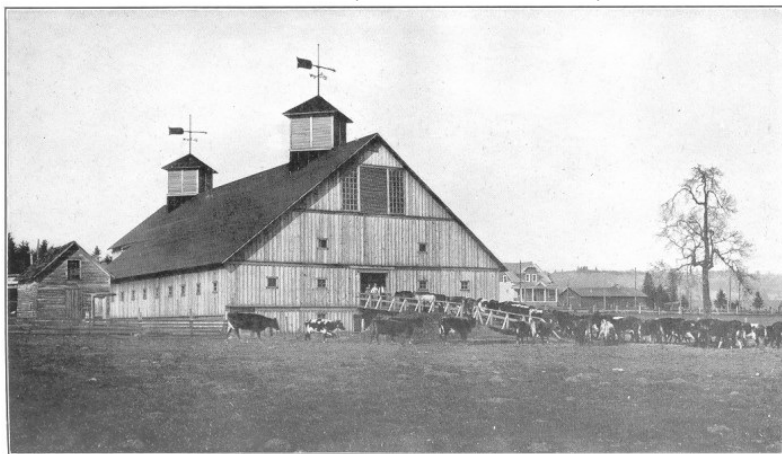


Plate No. 15.—Stock-Raising in Clarke County.

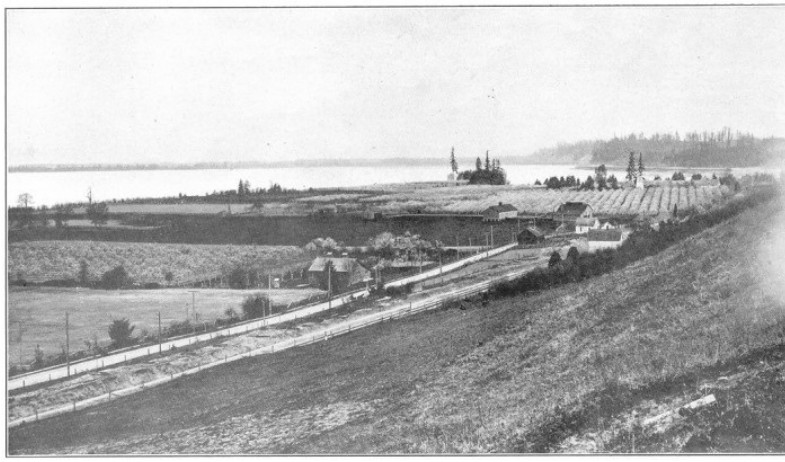


Plate No. 16.—A Clarke County Fruit Ranch.

Through its center north and south the Cascade mountains in a zigzag course lift their clustered peaks and mountain passes from four to eight thousand feet above the sea, while Mount Olympus and his colleagues higher still poke their inspiring front heavenward. Between these two white and green clad mountain ranges, protected from the blizzards of the southwestern plains and from the hurricanes from the ocean, lie in safety the placid waters of Washington's great inland sea, matchless Puget Sound.

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Where else upon the globe is such a diversified stretch of tranquil water, upon whose shores the ocean tides ebb and flow, upon whose surface the navies of the world could maneuver to their heart's content, while visible from shore to shore are the vast evergreen forests, interlaced with winding waters and stretching gently upwards till they reach the visible mountain peaks a hundred miles away, thousands of feet skyward?

Scarcely less enchanting is the view eastward from the Rainier's lofty height—a vast stretch of hill and plain almost surrounded by green mountain sides, through whose gray and green fields flow the great winding courses of the mighty Columbia and the lazy Snake rivers, while a multitude of smaller streams gleam through the forest sides of the mountains over innumerable waterfalls. Here within the foothills you gaze upon the largest lake within the state, a beauty spot to enchant alike the artist and the sportsman. Deep within its rocky sides and full of speckled beauties lying like a mirror in the stretch of green hills about it, lies Lake Chelan, and on its unruffled bosom a fleet of boats ply for fifty miles beyond its outlet till reach the mining foothills of the mountains. A hundred miles eastward, still among the scattered pines of northeastern Washington, the Spokane river tumbles in masses of foam and spray over a succession of rocky falls on its way to the Columbia, while still further on the Pend d'Oreille and upper reaches of the Columbia river flow close up among the mountains and foothills and present a series of beautiful combinations of rock, trees, hills and valleys, of forests and waterfalls of magnificent beauty. Washington in its scenery is magnificent in proportions, wonderful in its variety, grand and imposing in form and feature—picturesque—enticing—"a thing of beauty and a joy forever."

PRINCIPAL INDUSTRIES OF WASHINGTON.

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LUMBERING.

The description of the resources of a state naturally suggests what its industries are. The forests of western Washington inevitably lead to the lumber industry and the fertile soil of eastern Washington point as unerringly to agriculture. These are the two great industries of the state. The lumberman and the farmer are in the majority. Already there are sawmills enough in operation to cut up all the standing timber in the state within fifty years. They employ probably 100,000 men. This includes those engaged in logging and the subsidiary industries.

Of the trees the fir is pre-eminently useful, and more than half of the forests of the state are fir trees. It is of greater strength than any of the others and hence is used for all structural work where strength is of special importance. It is rather coarse grained, but when quarter sawed produces a great variety of grains very beautiful and capable of high finish and is extensively used for inside finishings for houses as well as for frame work. Its strength makes it ideal for the construction of ships. The yellow pine is strong, medium grained and well fitted for general building purposes, and is very extensively used in eastern Washington.

Cedar is very light and close grained and is chiefly used for shingles, and for this purpose has no superior. The cheaper grades are also used for boxes and sheathing for houses and many other purposes.

The spruce furnishes an odorless wood especially useful for butter tubs; for shelving and similar uses it is superior to either the fir or cedar. It is a white, close grained lumber, and appreciating in value.

The hemlock, whose bark produces tannin for the tanneries, is also a close grained light wood coming more and more into general use, for many purposes, especially where it will not be exposed to the weather.

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Logs frequently seven feet in diameter require big saws, and big carriers 50 to 100 feet long, and hence Washington has probably the largest sawmills in the world.

Our lumber is used at home and shipped all over the world to make bridges, ships, houses, floors, sash, doors, boxes, barrels, tubs, etc. Factories for the manufacture of wood products are scattered all over the state. Most of the sawmills and some factories are driven by steam made by burning sawdust, slabs, and other refuse of the mills. Coal and electricity, however, are both in use.

COAL MINING.

The mining of coal for foreign and domestic purposes is one of the most important of Washington's industries. The annual output of the mines is about three million tons, worth about eight million dollars; Fifty thousand tons of coke are made annually, worth at the ovens about \$300,000. The coal mining industry gives employment to 6,000 men. The production of coal for 1907 was distributed as follows:

Kittitas County, tons	1,524,421
King County, tons	1,446,966
Pierce County, tons	612,539
Lewis County, tons	101,275
Thurston County, tons	33,772
Whatcom County, tons	3,160
Clallam County, tons	300

The coke nearly all comes from Pierce county.

Nearly forty different corporations and individuals are engaged in coal mining. The coals thus far commercially mined are chiefly lignite and bituminous. These coal measures lie along the base of the foothills, chiefly of the Cascade mountains. Higher up are some mines of anthracite coals, not yet on the market for lack of transportation. As far as discovered they are chiefly near the headwaters of the Cowlitz river in Lewis county. Coal forms the largest factory in furnishing steam for the mill roads. Some of the railroads, notably the Northern Pacific and Great Northern, own their own mines and mine the coal for their own engines and shops.

It is also the main fuel supply for domestic uses, although fir and yellow pine cordwood is extensively used when the cost of transportation is not too great.

Coal is also the chief fuel used in steamboats, both those plying over inland waters and the ocean-going boats as well. Here also, however, the fir wood proves a good substitute and is used to some extent by local steamers on the Sound.

Coal is also used to create both steam and electricity for most of the large heating plants in the cities and in many factories and manufacturing plants, flour mills, elevators, etc. The fact that vast coal measures lie within 50 miles of the seaports of Puget Sound is a very important factor in insuring the construction of manufacturing establishments and the concentration of transportation in these ports.

Coal is also used in all the large cities for the manufacture of illuminating gas and as a by-product of this industry coke, coal tar, and crude creosote are produced.

The coke from the ovens goes chiefly to the smelters for the reduction of ores, both of the precious metals and iron.

METAL MINING.

The mining industry other than coal is quite rapidly reaching importance among our industries. There are in the state three large smelters, whose annual output of precious metals far surpasses in value the output of our coal mines. The ores for these values, however, do not all come from the mines of this state. Other states, British Columbia, Alaska, and some foreign countries help furnish the ores. But Washington has within its borders a great mineralized territory, not yet thoroughly prospected and very little developed, yet which materially assists in supplying these smelters with their ores.

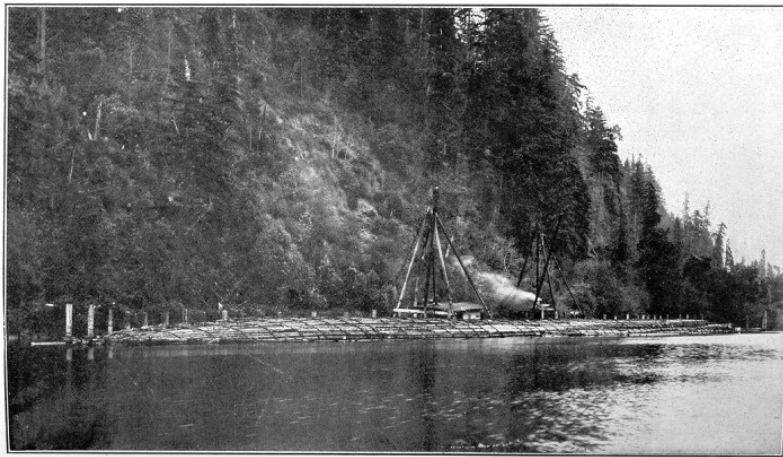


Plate No. 17.—Ocean-Going Raft, Built at Stella, Cowlitz County, by the Oregon Rafting Company.



Plate No. 18.—COWLITZ COUNTY TIMBER. This Stick Was 301 Feet Long and 36 Feet in Circumference at Stump.

The smelter at Everett receives a steady supply of arsenical ores of copper, lead, gold, silver and zinc from the mines of Snohomish county which are of magnitude sufficient to make profitable the railroad which has been built to Monte Cristo purposely for these ores. This smelter has a special plant for saving the arsenic in these ores, which materially adds to the value of its output and is said to be the only one of its kind in the nation.

Besides the mines at Monte Cristo, there are copper mines being successfully worked at Index, whose ores are shipped both to Everett and Tacoma.

At Tacoma is located one of the largest smelting and refining plants in the nation, which draws its ores from all parts of the world. At North Port in Stevens county is a smelter which is chiefly supplied with ores from this state, supplemented by those of British Columbia. At Republic in Ferry county are mines producing gold and silver ores of such extent as to have induced the building of a branch line of railroad to carry their ores to this smelter. There are also in Stevens county large deposits of silver-lead ores, which will be large producers as soon as better transportation is secured. This last statement is also true regarding many mines in other counties.

FISHING INDUSTRY.

The business of catching, preserving and selling fish gives employment probably to more than 10,000 men in this state and adds probably four million dollars annually to its wealth production. The fishes include salmon, which is the chief commercial species, cod in many varieties, halibut, salmon trout, perch, sole, flounders, smelt, herring, sardines, oysters, clams, crabs and shrimp from its salt waters, and sturgeon, trout, perch, black bass, white fish and many others from the fresh water. Great quantities of salmon and halibut are shipped in ice-packed boxes, fresh from the waters, to all parts of the nation. Of these fish, many salmon, halibut and cod are caught in Alaskan waters and brought into this state to be cured and prepared for the market.

The salmon are chiefly packed in tin cans after being cooked; the cod are handled as are the eastern cod, dried and salted. The business of handling the smelts, herring, etc., is in its infancy, as is also that of the shellfish.

The propagation of oysters, both native and eastern, is assuming great importance in many places in the state. In Shoalwater bay, Willipa bay, Grays harbor, and many of the bays and inlets of Puget Sound, oysters are being successfully grown. In some instances oyster farms are paying as much as \$1,000 per acre. The state has sold many thousand acres of submerged lands for this purpose. It has also reserved several thousand acres of natural oyster beds, from which the seed oysters are annually sold at a cheap price to the oyster farmers, who plant them upon their own lands and market them when full grown.

The native oysters are much smaller than the eastern oysters and of a distinct flavor, but command the same prices in the market.

AGRICULTURE.

Cereals.

The largest and most important industry in the state is without doubt the cultivation of the soil. The great variety of the soils and climatic conditions has made the state, in different parts, admirably adapted to a large variety of farm products. Vast fields of wheat cover a large proportion of the uplands of eastern Washington, the average yield of which is greater than that of any other state in the Union.

The diked lands of western Washington produce oats at the rate of 100 to 125 bushels per acre. In some counties in southeastern Washington barley is more profitable than any other cereal, on account of the large yield and superior quality.

Corn is successfully raised in some of the irrigated lands, but is not as profitable as some other crops and hence is not an important factor in Washington's grain supply. Rye, buckwheat, and flax, are successfully grown in many localities. In western Washington, particularly, peas form an important ration for stock food and are extensively raised for seed, excelling in quality the peas of most other states.

Hops.

Hops are a large staple product in many counties of the state. They are of excellent quality, and the yield is large and their cultivation generally profitable. The chief drawback is in the fluctuations of the market price.

Grass and Hay.

Grass here, as elsewhere, is very little talked about, although it is one of the large elements that make the profits of agriculture. Saying nothing of the vast amount of grass consumed green, the state probably produces a million tons of hay annually, averaging \$10 per ton in value. Western Washington is evergreen in pasturage as well as forests and no spot in the Union can excel it for annual grass production.

East of the mountains a very large acreage is in alfalfa, with a yield exceeding six tons per acre.

Potatoes.

On the alluvial soils of western Washington and the irrigated lands of the eastern valleys, potatoes yield exceedingly heavy crops of fine tubers, often from 400 to 600 bushels per acre. All other root crops are produced in abundance.

Beets.

Extensive experiments have proved that the sugar beet can be raised profitably in many counties and sugar is now on the markets of the state, made within its borders from home-grown beets.

Truck Gardening.

Garden stuff is supplied to all the large cities chiefly from surrounding lands in proper seasons, but much is imported from southern localities to supply the market out of season. The soils utilized for this purpose are the low alluvial valley lands and irrigated volcanic ash lands. The yield from both is astonishing to people from the eastern prairie states, and even in western Washington, with its humid atmosphere and cool nights, tomatoes, squashes and sweet corn are being generously furnished the city markets. The warm irrigated lands of eastern Washington produce abundant crops of melons, cucumbers, squashes and all other vegetables.

HORTICULTURE.

The conditions for successful fruit growing are abundant, and peculiarly adapted to produce excellence in quality and quantity in nearly all parts of the state, but some localities have better conditions for some particular fruits than others, e. g., western Washington excels in the raising of raspberries and other small fruits of that sort, its climate and soils being suited to the production of large berries and heavy yields.

Certain localities in eastern Washington excel in the yield of orchard fruits, chiefly on irrigated lands. Owing to the abundant sunshine, the fruits of eastern Washington are more highly colored than those of other sections of the state.

Taking the state as a whole, horticulture is rapidly assuming vast importance. Thousands of acres are yearly being added to the area of orchards, and remarkable cash returns are being realized from the older plantings now in full bearing.

This is true of all the common orchard fruits, apples, pears, peaches, plums, cherries, etc.

In western Washington large plantings of the small fruits are growing in favor, some of the new fruits receiving especial attention. One plantation of thirty acres is devoted exclusively to Burbank's phenomenal berry.

Grapes are being grown on both sides of the mountains, the eastern side, however, giving this fruit much more attention. Cranberries are being produced in quantities on some of the bog lands near the sea coast.

Nuts have been planted on both sides of the mountains in an experimental way, and it has been found that walnuts, chestnuts, and filberts are profitable. In the southeastern section of the state, nut growing bids fair to develop into a considerable industry.



Plate No. 19.—Royal Anne Cherry Tree, Owned by J. H. Rogers, Lexington, Cowlitz County. Circumference of this Tree Below First Limb, 72-3 Feet. Yield in 1907, 1,500 pounds.



Plate No. 20.—Dairy Herd on Ranch of T. D. Dungan, Kelso, Cowlitz County.

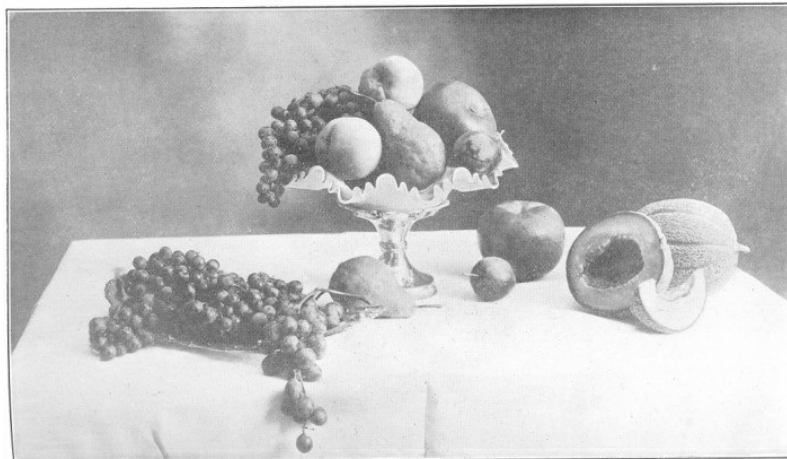


Plate No. 21.—Douglas County Fruit.

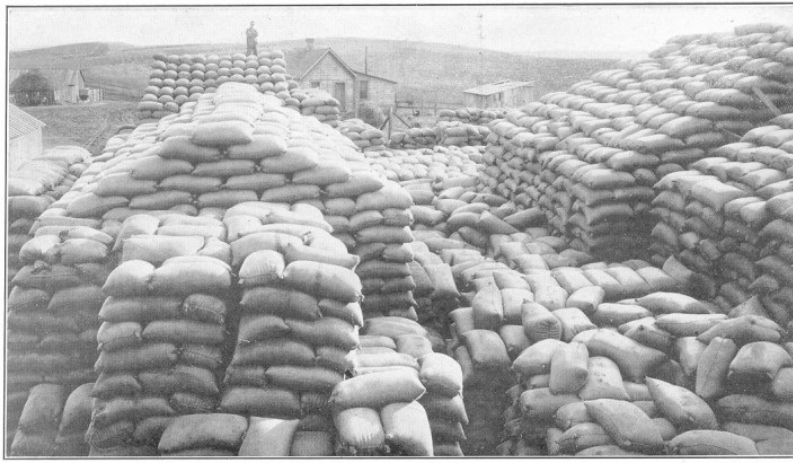


Plate No. 22.—Douglas County Wheat at Tram Waiting Shipment on Columbia River Boats.

STOCK RAISING.

The glory once enjoyed by this industry is rapidly changing color. Formerly, a predominating feature of the state was its big herds feeding gratuitously on government lands. This condition still exists to an extent, the forests being utilized, under regulations by the government, but the herds are limited.

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Individual farms and small herds are now the order of the day and, incidentally, better breeds are developing. This is true of horses, cattle and sheep. The demand for horses is chiefly for the heavy draft animals for use in the logging camps and on the streets of the cities, and the demand is fairly well supplied, chiefly in eastern Washington.

Good cows and fat steers are always in demand, and Washington's market for them is not fully supplied from the home farms. The same is true regarding sheep and hogs. The phenomenal growth of the seaport towns on Puget Sound and the difficulty in clearing the lands in western Washington combine to make the consumption exceed the home grown supply, and many are imported from neighboring states.

There is abundant room for expansion in stock raising in the state. Conditions are admirable. Grass is abundant for pasturage, hay is a prolific crop, the climate is mild, no pests afflict the cattle, and the markets are at the door and always hungry.

THE DAIRY.

There are few states in the Union equal to Washington in its possession of natural conditions suited to make dairying profitable. In all of western Washington, in the western part of eastern Washington, and in both the northeastern and southeastern sections of the state, the climate and soil conspire to make ideal grazing. Particularly is this true in the western part of the state. All the grasses grow in luxuriance, and with proper care and forethought there may be secured almost twelve months of green feed annually. The crops best adapted for use as ensilage grow well, making large yields. Timothy, clover hay and alfalfa are the standbys for winter feed so far as the coarse feed is concerned, and while mill stuffs and all grains are high in price, so are correspondingly the products of the dairy. Butter ranges from 25 cents to 40 cents per pound, and milk sells in the coast cities for 10 cents per quart.

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POULTRY.

Perhaps no part of agriculture is more profitable to the wise farmer than his barnyard fowls, and in Washington this is exceptionally true. Eggs retail in the coast towns at 25 cents to 60 cents per dozen. Turkeys at Thanksgiving time are worth from 25 cents to 30 cents per pound dressed, and other fowl in proportion. Conditions can be made as ideal for poultry raising in this state as anywhere, and with the market never satisfied, the poultry raiser has every essential to success in his favor.

BEE CULTURE.

Bee culture among the orchards and alfalfa fields of eastern Washington is a side line which should not be neglected by the farmer or horticulturist. Many are fully alert to the favorable conditions, and Washington honey is on sale in the late summer in most of the cities and towns until the supply is exhausted, and then that from other states comes in to meet the demand.

Pasturage for bees is also abundant in many parts of the western half of the state, and many a rancher among the forest trees has upon his table the products of his own apiary.

MANUFACTURING OTHER THAN LUMBER.

The State of Washington has natural products either within its own borders or nearby, to foster many manufacturing industries, besides those having lumber for their raw material.

In the Puget Sound basin are vast deposits of lime rock, which is manufactured into commercial lime, supplying the home market not only, but is being shipped also to foreign ports. These are chiefly on San Juan island.

Considerable granite of fine quality is used in building and cemetery structures, from quarries in Snohomish and Skagit counties. Sandstone is being used for building purposes and is of splendid texture. Onyx of great variety and beauty is extensively quarried in Stevens county. Marble of good quality is being sawed up to limited extent. Quarries in southeastern Alaska furnish rather a better quality and are more extensively worked.

Clays of great variety, including fire clays and those suitable for terra cotta, are abundant, and large factories in King county are turning out common and pressed brick of many colors and fine finish, vitrified brick for street paving, terra cotta, stoneware, drain tile, sewer pipe and other kindred products.

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At Concrete, a town of 1,200 people in Skagit county, two factories, employing 500 men, are daily turning out 1,400 barrels of Portland cement of fine quality, which is finding ready market in all the large cities.

At Irondale, in Jefferson county, a large plant has been in operation turning out pig iron. It is now in process of being turned into a steel plant and within a few months will be turning out steel bars and pipes for sewer, gas and other purposes. The ores are obtained from Whatcom and Skagit counties, some bog iron in the immediate vicinity and additional ores from Vancouver island. More than a half million dollars has already been invested and this will probably reach a full million when the plant is in complete operation. Although iron ores are present in the state in large quantities, no other serious effort is being made to supply the state with home made pig iron or its products. Here is a vast field awaiting brains and capital. The above represent only a few of the many lines of manufacturing that have been successfully developed in Washington.

TRANSPORTATION.

Commerce and transportation are two affinities, ever seeking each other. They have found on Puget Sound an ideal trysting place. Here the ships of the ocean reach immense placid waters, not duplicated on either side of the continent, and for this reason the railroads have come from the interior to meet them. From foreign ports all over the world ocean carriers are bringing in great loads of merchandise and passengers, and the railroads coming from the Atlantic coast across the entire continent bring like loads of merchandise and human freight, and here they are exchanged. Teas from China and Japan for cotton from Galveston and cotton goods from Massachusetts; rice and silk, hemp, matting, tin, copper and Japanese bric-a-brac are exchanged for grain, flour, fish, lumber, fruit, iron and steel ware, paper, tobacco, etc. Merchandise of all sorts from Asia, the Philippines, South America and Australia is here exchanged for different stuffs raised or made in every part of the American continent and some from Europe. This commerce, however, is in its infancy. The Northern Pacific and Great Northern railways have fattened on it for years. All their rivals have looked on with envious eyes till now a mad rush is on among them all for vantage ground. The Milwaukee, Canadian Pacific and Burlington systems already run their trains here, while the Union Pacific and others are rushing for terminals on Puget Sound tide water. And while thus racing for the great long haul prizes, they are incidentally giving to the state a complete system of transportation in all its parts and for all its multitudinous productions.

Of almost equal importance to the state is its great fleet of local steamers which ply its inland waters, and the numerous electric lines that are rapidly uniting its cities and villages and giving a new and cheap method of migration. From the city of Spokane and radiating in every direction, electric lines are in operation and more are in course of construction, bringing the most distant points of the great "Inland Empire" into close touch with its metropolis and great distributing center. On the west side the same thing is true, only in less degree. Between these two groups of transportation facilities, and the commerce which the union of rail and tidewater has created, the citizens of Washington have found innumerable opportunities of employment.

These opportunities are increasing and broadening every year with the continued development of the state and in multiplied and varied form they await the newcomer who possesses the ability to rise to the demands of the situation.

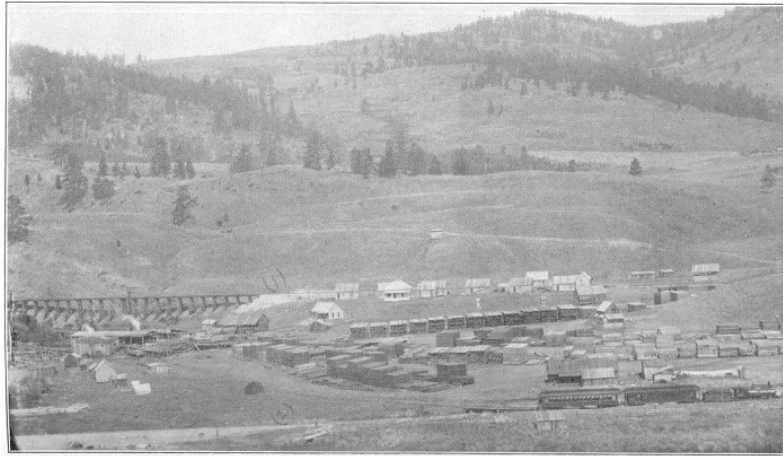


Plate No. 23.—FERRY COUNTY VIEWS. Plant of Karamin Lumber Co., Karamin, Ferry County. (1) Track of Spokane & B. C. Railway. (2) Track of Spokane Falls & Northern Ry.

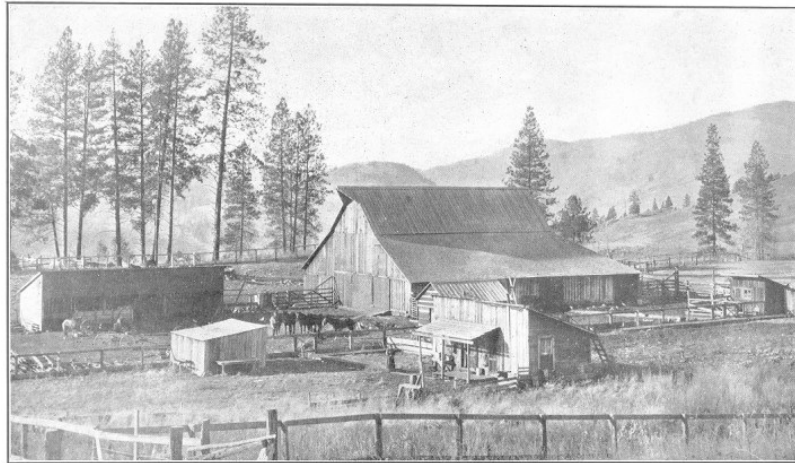


Plate No. 24.—Helphrey Ranch, Curliew, Ferry County.

OPPORTUNITIES IN WASHINGTON.

Washington is a land of widely diverging natural conditions. Its topographical characteristics vary from the low southern exposures of the inland river valleys, where strawberries mature as early as April, to the mountain summits of the Cascades and Olympics, where winter reigns supreme the year round. Between these extremes may be found every range of climate known to the semi-tropical and temperate zones.

For the Homeseeker.

Our lands include those suitable for the successful raising both of the more tender, as well as the hardier fruits. Every grain, other than corn, yields splendid results, while the truck gardener, small fruit grower, dairyman, stock raiser and, in fact, every man who aims to secure a living and a competence from some form of farm industry will find, if he looks for it, a spot within the confines of this state that will meet his most exacting requirements.

To insure success in any of the above lines requires pluck, energy, stick-to-it-iveness, a determination to secure desired results, and some capital. But given these, the man who is looking to Washington as a favored location for the establishment of his household gods need have no fear of the outcome.

Land may be secured suitable for any of the different purposes mentioned, and with proper care it may be made to yield beyond the most sanguine expectations. A market is ready and waiting to absorb every class of product at profitable prices. Transportation facilities are already excellent and the millions now being expended in new railway construction through the state give some idea of what the future holds forth in this particular.

For the Business Man.

To the business man a new state, developing as is the State of Washington, naturally offers numerous and attractive opportunities. New communities are springing up along the lines of the Milwaukee, the Portland & Seattle, and other railways now in process of construction, each demanding its quota of commercial enterprises, while the older cities and towns are continually absorbing new additions to their population, thus paving the way for new business facilities.

For the Investor.

The investor will find an attractive field of action in Washington, and with the exercise of caution and prudence may anticipate far better returns than he has been accustomed to, without undue risk of the impairment of his capital. Raw lands, timber lands, improved farms, irrigated lands and city and town property are exhibiting a steady increase in value and undoubtedly will continue to do so for years to come. The capitalist may take his choice of any of these forms of investment, or he may turn to private, industrial or municipal securities which are constantly being offered on excellent terms and based upon unimpeachable assets.

For the Manufacturer.

To the manufacturer this state offers all the conditions that may be classed as prerequisite to success. Cheap electric power is available in nearly every community of any size in the state, while millions of horse power remain still undeveloped in the rivers and mountain streams. Raw material is here, in abundance, and the markets of the world are accessible through rail and water transportation. The principal manufactured products of the state consist of lumber and lumber products, flour, feed and various cereal foods, butter, cheese, evaporated milk, crackers and candy, baking powder, soda, fruit extracts, clothing, boots and shoes, baskets, bags, beer, ice, brick and other clay products, iron products, wagons and agricultural implements, turpentine, leather products, cordage, saws, boilers, asbestos, water pipes, tin cans, railway equipment, ships and boats, canned fruits and vegetables and a variety of other products. Desirable locations are frequently offered free to those who will establish manufacturing industries.

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For the Wage Earner.

The wage earner who comes to this state sufficiently fortified to maintain himself and family for a period may usually expect to find satisfactory employment at good wages. Washington has never been exploited as a poor man's paradise, but there is a tremendous development in progress throughout the state in every line of industry and there is a steady demand for mechanics and laborers of all classes.

The foregoing is intended to present in brief form an outline of the opportunities that await the enterprising newcomer in this state. Success is being achieved in all of the various lines touched upon, by thousands who have located here in the past few years, and as yet the resources of the state have scarcely been touched. The future of Washington is big with promise, based upon results already achieved, and in that future the newcomer may expect to participate in proportion to the effort he expends.

WASHINGTON'S EDUCATIONAL SYSTEM.

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The importance of a complete and well rounded public educational system has not been overlooked at any stage in the growth and development of this commonwealth. From kindergarten to university no link is wanting to supply the ambitious boy or girl with the very best training that modern educational experts have evolved.

The common school system of the state is based upon the theory that every child must be educated, and that the state must provide the facilities for the accomplishment of this purpose. This theory has been carried out so thoroughly and intelligently that there is scarcely a child in the state of school age who does not live within easy reach of a school house. Moreover, attendance is compulsory and no child is excused unless satisfactory reasons are presented to the proper authorities.

EDUCATIONAL ENDOWMENT.

Upon admission of Washington to statehood a land endowment was granted to the state by the federal government for common school purposes which in round numbers totals nearly two and one-half millions of acres. This land is offered for sale or lease by the state, through the office of the state land commissioner, and the proceeds constitute a permanent and irreducible fund to be invested for educational purposes.

In addition to the foregoing lands, the state university has an endowment of 100,000 acres; the agricultural college, 90,000 acres; the scientific school, 100,000 acres, and the state normal schools, 100,000 acres. As yet only a small portion of these lands has been disposed of. The expense of maintaining our schools, therefore, is met almost entirely by taxation.

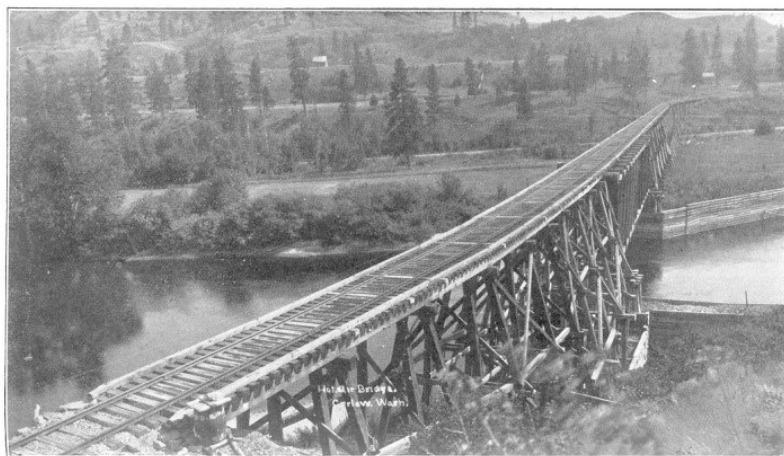


Plate No. 25.—View of the Country Near Curlew, Ferry County.



Plate No. 26.—Three-Year-Old Orchard, Near Pasco, Franklin County.



Plate No. 27.—Combined Harvester Operating in the Wheat Fields of Franklin County. This Machine Cuts, Threshes and Sacks the Grain, Depositing the Filled Sacks on the Ground as it Moves Through the Field.



Plate No. 28.—(1) A Jefferson County Country Home. (2) A logging Railroad, Jefferson County. (3) Prize Products, Jefferson County.

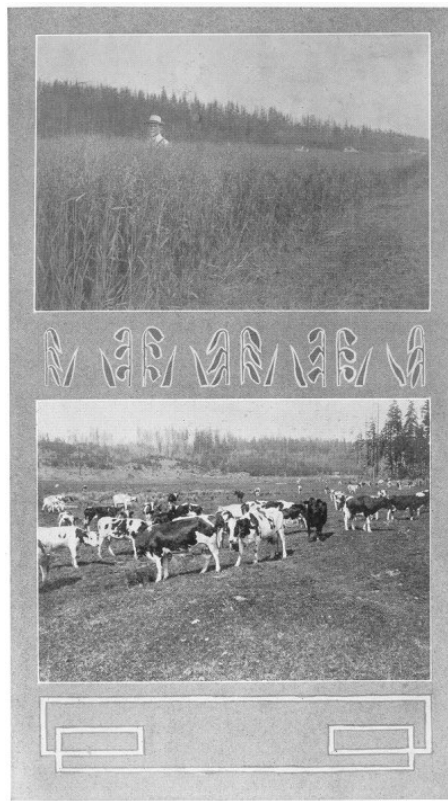


Plate No. 29.—JEFFERSON COUNTY RURAL VIEWS. Field of Oats and Vetch Yielding 5 Tons Per Acre. Herd of High-Grade Holstein Dairy County.

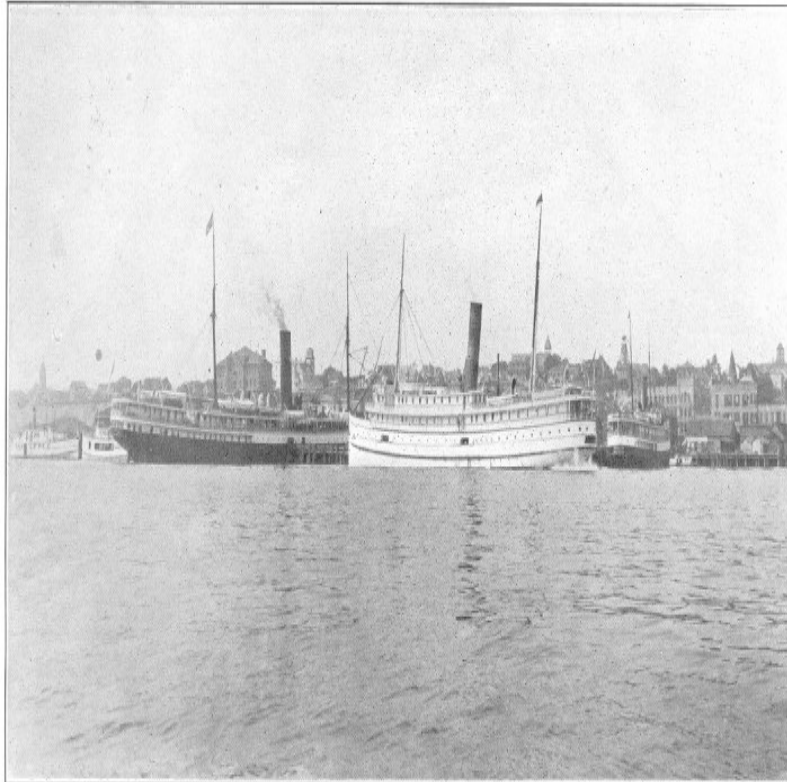


Plate No. 30.—View of Waterfront, Port Townsend, Jefferson County.

HIGHER INSTITUTIONS.

The University of Washington occupies a campus of 350 acres, located entirely within the limits of the city of Seattle.

The buildings of the university consist of the administration building, science hall, chemistry building, engineering building, power house, dormitories for men and women, and other smaller buildings. In addition to the foregoing, the university will come into the possession of a number of commodious structures at the conclusion of the Alaska-Yukon-Pacific Exposition. For the current year, the enrollment of students at the university is 1,838. The faculty consists of 115 members and for the ensuing biennial period the legislature appropriated the sum of \$673,000 for the support of the institution.

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The State College of Washington is located at Pullman, in Whitman county. This institution emphasizes technical and scientific education and in its agricultural departments has accomplished remarkable results. It is annually giving the state a number of highly trained experts in modern agricultural science, and the farming interests of the state have been greatly assisted by the work of the college. Instruction is given in civil engineering, mechanical and electrical engineering, geology, botany, chemistry, zoology, economic science and history, modern languages, domestic economy, besides the practical operation of a dairy farm and other branches of agricultural industry. The institution, in addition to its land endowment, receives annual assistance from the federal government and a biennial appropriation from the state legislature.

The state also maintains three normal schools, located respectively in the cities of Bellingham, Ellensburg and Cheney. These institutions have a combined attendance of about 850 and are the recruiting ground for securing

At Vancouver is the State School for the Deaf and Blind. The defective youth of the state are cared for in a well equipped institution located at Medical Lake, in Spokane county, and at Chehalis is the state training school for incorrigibles.

LOGGED-OFF LANDS.

The problem of making a home and providing a competency for old age upon the lands in western Washington is somewhat different and more difficult than doing the same upon the prairie lands of the east. As they come to the hands of the would-be tiller of the soil, they present a forbidding and disagreeable aspect. The loggers have left them with considerable standing timber, with the tops of the giants of the forests lying where they fell, scattered over the land and covering it with an almost impenetrable mass of great limbs and brush and dead logs. If seen in the summer, there is added the view of a mass of green vegetation, rank and to a large extent covering up the mass of dead stuff left by the loggers with the huge stumps sticking up through it all, mute monuments of the lost wealth of the forest. In some instances this is somewhat relieved by the fact that, either by accident or design, the fire has been there and swept through it all, leaving nothing but blackened and smouldering emblems of its prior greatness. In this case, however, only the lighter part of the refuse has been destroyed. The great stumps of fir and cedar are there still, blackened and perhaps with their dead hearts burned out. Great and small decaying logs are there, some too wet to burn, some with the bark alone burned off, and some with the dead centers burned out, scattered about or piled in crisscross masses as they had fallen during the ages of the forest's growth. In either case it looks different from the smooth surface of the sagebrush plains about to be converted into irrigated farms or the clean face of the prairie lands covered with grass and ready and longing for the plow. But with all their forbidding aspects, black with a portentous cloud of hard labor and long waiting, their known hidden wealth lures on the hardy pioneer to the task. He throws off his coat, rolls up his sleeves, gathers together his tools, and with the indomitable courage of the Anglo-Saxon tackles the problem, works and fights and rests by turns till within a few years he finds himself triumphant. Eventually, beneath his own orchard trees laden with fruit, and in the comfort and delight of his big home fireplace, he contemplates the rewards of his struggle, as he sees his cows complacently chewing their cuds in his green pastures and listens to the neigh of his fat horses, and at his table, laden with all the bounty of his rich lands, thanks his Maker for the successful completion of a hard struggle and the enjoyment it has brought to him and his family.

MODERN METHODS.

Having thus presented the picture in perspective, we will now work out some of the details which help to rob it of its difficulty and add to its attractiveness. If the lands have not been burned off, and in many instances where this has been done, the rancher will find a lot of cedar logs, perhaps partially burned, and possibly long black stubs that it will be wise to save. Cut into proper lengths and put into piles for preservation, they will make his raw material for fencing, barns, etc. The cedar is straight-grained, splits easy, and true, and to the rancher is very valuable, taking the place of sawed lumber for a great many farm purposes. Having carefully saved the cedar, the rancher will fire his clearing, thus getting rid of a large share of the logger's waste with practically no labor. To the task of disposing of the remaining logs and stumps he will bring modern tools and methods into action. The axe and shovel and hand lever have given place to gunpowder, the donkey engine, derrick and winch. Stump powder puts all the big stumps into pieces easily. The modern stump-puller lifts out the smaller stumps with ease. The donkey engine and derrick pull together and pile the stumps and logs into great heaps, and once more the friendly fire helps out; and while the dusky woodlands are lighted up with passing glory the rancher sleeps to wake up and find his fields almost ready for his plow, nor has the task had half the hard labor nor consumed half the time that years ago would have been expended in clearing the same amount of oak and maple and hickory land in the valley of the Mississippi. It should be said, however, that what is gained in time and saved in labor costs money. The expense of clearing the logged-off land by these modern methods and tools will run from \$40 to \$150 per acre, dependent upon various conditions, number and size of stumps, etc.

There are in western Washington thousands of acres which are being pastured and tilled, from which the large stumps have not been removed. In these instances the same methods can be used, handling all the small logs and stumps and litter, and after the first burning, carefully repiling and burning the refuse and then seeding to grass. In the ashes and loose soil, grass seed readily starts, and a single season will suffice to provide fairly good pasturage, which will annually grow better.

COST OF LABOR AND MATERIAL.

The following table, taken from the report of a government inspector, will give an idea of the cost of the different materials and labor used in clearing logged-off land:

Cost of removing stumps from 1 foot to 4 feet in diameter from 120 acres of land in 1907:

MONTH.	Powder, lbs.	Fuse, ft.	Caps, No.	Stumps, No.	Labor.	
					Hours.	Dollars.
June	13,700	10,100	2,400	2,135	2,380	\$650.00
July	1,750	2,050	400	239	260	87.00
August	2,750	2,700	700	445	324	114.90
September	1,950	2,160	500	383	324	126.37
October	1,250	1,000	300	237	198	77.53
November	2,350	3,100	800	378	283	114.97
Total	23,750	21,100	5,100	3,818	3,709	\$1,170.77
Av. pr. Stump	6.22	5.52	1.33		0.987	0.3006
Av. Cost, cents	19.76	2.37	.87			

The average cost of the removal of each stump is shown below:

<i>Cents.</i>	
Powder	49.76
Fuse	2.37
Caps	.87
Labor	30.66
Total	83.06

The average cost of the materials used was as follows: Powder, per pound, 8 cents; fuse, per 100 feet, 43 cents; caps, per 100, 65 cents.

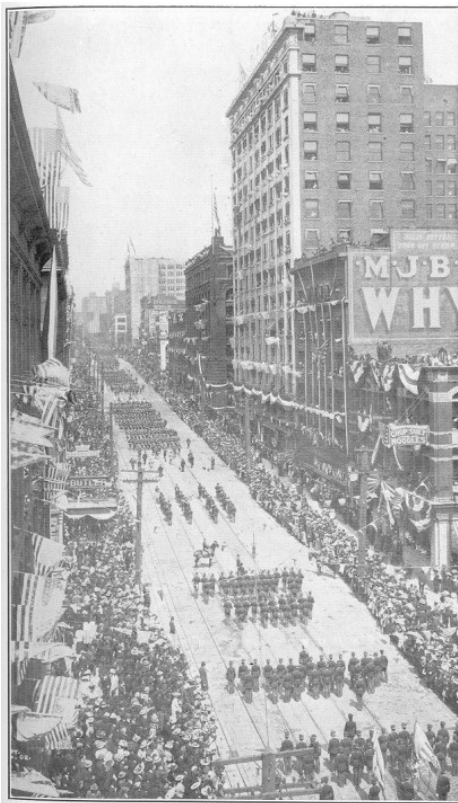


Plate No. 31.—View of Second Avenue, Seattle, During Parade of Marines from Atlantic Fleet, May 26, 1908.



Plate No. 32.—A Corner of the Seattle Public Market. Truck Gardeners Find Ready Sale for Their Wares Here the Year Round.

There are probably two and one-third million acres of logged-off lands in the state, of which only half a million are under tillage or pasturage. The same report shows the distribution of these lands as follows:

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COUNTY.	Acreage merchantable timber.	Acreage logged off.	Acreage in cultivation.	Total acreage.	Per cent. suitable for agriculture.
Chehalis	583,200	112,748	11,216	807,432	90
Clallam	296,611	195,933	11,784	504,329	75
Clarke	190,000	108,661	51,570	350,231	
Cowlitz	500,000	25,000	20,000	704,000	75
Island	8,013	99,866	9,317	117,196	75
Jefferson	186,647	59,427	4,657	254,385	50
King	640,000	110,000	74,857	1,243,000	
Kitsap	45,429	171,364	7,978	224,771	
Lewis	543,995	160,425	47,059	884,050	65
Mason	240,211	150,430	7,540	398,181	
Pacific	367,827	62,720	23,042	453,139	
Pierce	413,044	150,000	27,915	658,052	75
San Juan	10,000	80,000	4,000	95,684	
Skagit	306,759	149,923	45,605	502,287	25
Snohomish	258,005	270,422	20,908	558,336	
Thurston	291,200	120,000	13,680	428,005	
Wahkiakum	74,564	67,337	3,642	145,544	50
Whatcom	78,405	258,302	35,059	371,766	
Total	5,033,911	2,352,109	428,829	8,700,388	

There are a great many acres of these lands that can be slicked up and burned over and prepared for seeding, not disturbing the stumps, at an expense of about \$10 per acre. Thus treated, good pasturage can be secured cheaply. In time some of the stumps will rot out and be easily removed. When the stumps are not too thick, the lands can be successfully prepared and planted to orchards without removing the stumps, and their unsightly appearance can be turned into a thing of beauty and great profit by planting evergreen blackberries and loganberries about them, using the stumps for trellises. These berries in the climate of western Washington are wonderfully prolific and find a greedy market.

COMPENSATIONS.

There are several facts about making farms out of logged-off lands which should not be lost sight of, because they

largely compensate for the labor spent in the undertaking. One of these is that the problem of fuel is solved for a lifetime and for the coming generation. Five acres can be left untouched as a reserve and in a remarkably few years it will re-forest itself.

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The growth of trees under the humid atmosphere of western Washington is astonishing, and a very few years will suffice to provide one with a wood lot to last a generation. Meanwhile some of the fir logs and alder and maple trees will be preserved from the fire and piled up to provide fuel for the years until the wood lot furnishes a fresh green supply.

Then, too, as has already been suggested, the fence question, no small item in a prairie country, is satisfactorily answered with no expenditure but for labor. The cedar logs, splitting with ease, can be turned into rails or boards or posts—preferably the former—and the rails put on top of each other between two posts fastened together at the top make as good a hog-tight and cattle-proof fence as can be desired, and these rails will last in the fence for a century. For the house, doubtless more satisfaction can be had by patronizing the nearest saw-mill, although many houses made out of split cedar timbers and boards are in the state, proofs at once of the usefulness of this timber and the hardihood and ingenuity of the rancher. But for the barn and stable, pig-stye, hennery, chicken-coop and fruit boxes, and a great many other things, the rancher patronizes his reserve log pile instead of the lumber yard, and saves time and labor in so doing. Another fact which compensates the rancher in western Washington in the struggle for a home which will provide a safe and generous support in his old age is that during all the labor and waiting he is enjoying a delightful climate, in which no blizzard drives him from his work. No cyclone endangers his life and fortune. No snakes lurk in the underbrush. No clouds of dust blind his eyes. No sultry summer suns make him gasp for breath, and no intense cold freezes his face or feet. He can work if he wishes as many days as there are in the year, and know that every stroke of his axe or mattock is a part of his capital safely invested that will pay back an annual dividend for a lifetime. No soil will respond to his energy more quickly or more generously.

There is one more possible compensation. Fir logs and stumps and roots and bark are all full of pitch. Factories are now in operation that are turning this wood into charcoal and saving and refining all the by-products, particularly turpentine, wood alcohol, pitch and tar. These factories are successful and paying dividends, but are on a large scale and permanently located. It is probable that some genius will soon evolve a movable plant, capable of serving the same purpose, which can go from one ranch to another. When this is done, it will be found that the refuse left by the logger is worth several times more than the cost of getting it off the land with powder and fire, and, instead of being a burden upon the land of \$100 per acre, will become a matter of merchandise to be sold for much more and removed from the land with no expense to the owner.

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As a final word, it should be remembered that, after these lands are put under good tillage, every acre can be made to return more than the cost of clearing annually. Western Washington has never been able to produce enough to feed its wonderfully increasing population. Meats, vegetables, fruits, poultry, eggs, etc., are all constantly coming in from outside to supply the markets. This condition keeps prices high. It has been so for twenty years, and will be for twenty years to come. From \$100 to \$500 per acre per year can be had from fruits and vegetables. The same can be realized from poultry, nor will the dairy fall far behind when the scrub cow is abandoned and a choice thoroughbred animal takes its place and the soil is intensely tilled and fertilized.

The logged-off lands when first looked at are black and big labor and difficulties. When the problem is intelligently understood—undertaken with comprehension and some capital and plenty of grit—the solution is easy and the rewards ample and gratifying.

IRRIGATION IN WASHINGTON.

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The lands which require irrigation in the state are chiefly the lower lands in the valleys of the rivers east of the Cascade mountains.

The winds from the Pacific, though heavily laden with moisture, are forced to surrender the greater portion to western Washington, as they meet the cold heights of the mountain ranges. The mountains themselves receive a very heavy fall of snow in winter, which fills the lakes and sources of the rivers on the eastern side, providing a large amount of water available for irrigation purposes, for lands not too far distant. Within fifty miles from the mountain peaks there is a drop of about 4,000 feet. The sides of the valleys in the main are gradual slopes. These conditions make irrigation very feasible. Its wonderful results have been seen and the process of irrigation has found a wide field within the past few years.

THE IRRIGATION AREA.

Not only the Yakima valley, where this method of farming had its beginning in the state, but many other places, are now being made productive which were once thought wholly worthless on account of their aridity. Among these are the Wenatchee valley, the Entiat, the Methow, the Chelan, and the Okanogan—all on the slope of the Cascades. The immediate low lands of the Columbia and Snake rivers and considerable of the narrow valleys of the small streams emptying into them have in many instances been irrigated.

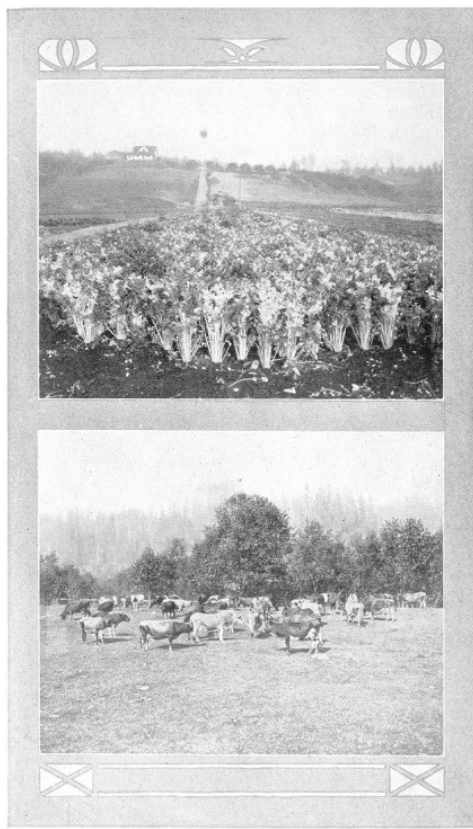


Plate No. 33.—King County Rural Views.

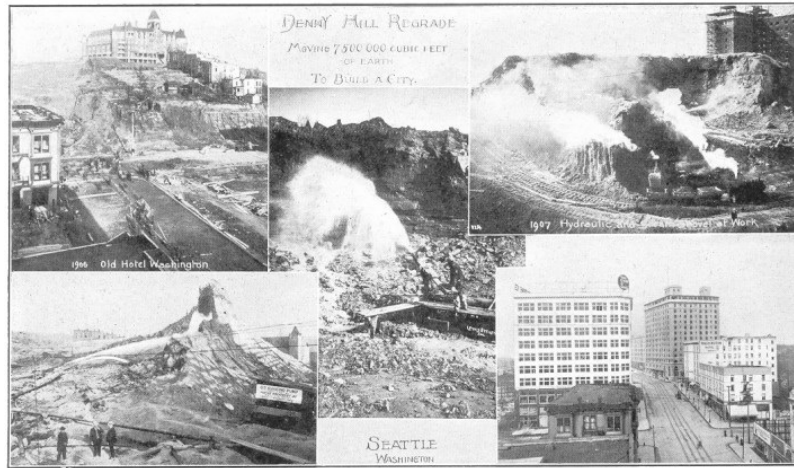


Plate No. 34.—HOW THE HILLS MAKE WAY FOR THE SKYSCRAPERS IN SEATTLE. 1907—Last of Hotel Washington. 1908—New Hotel Washington.

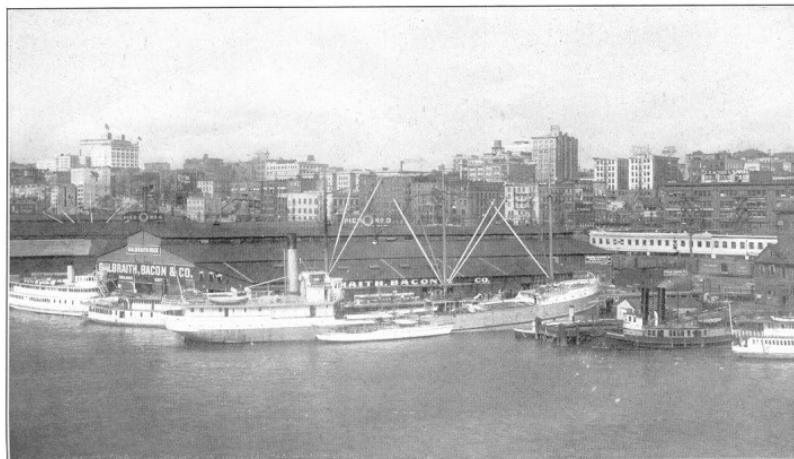


Plate No. 35.—A Portion of the City of Seattle Overlooking the Harbor.

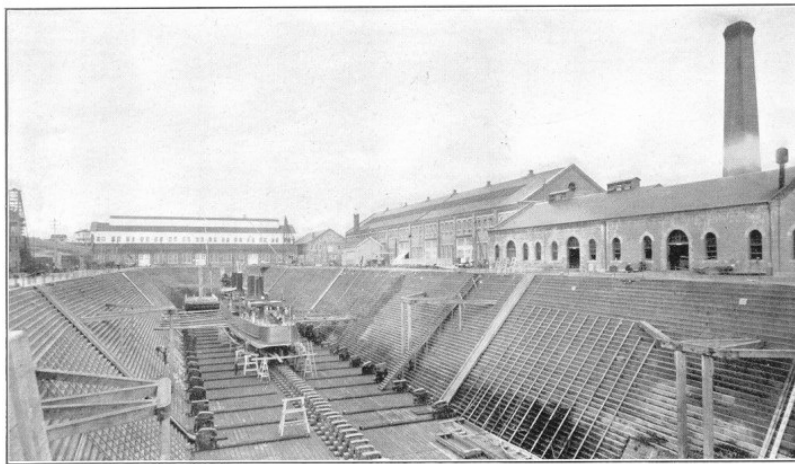


Plate No. 36.—Torpedo-Boat Destroyer in Government Drydock at Navy Yard, Puget Sound, Kitsap County.

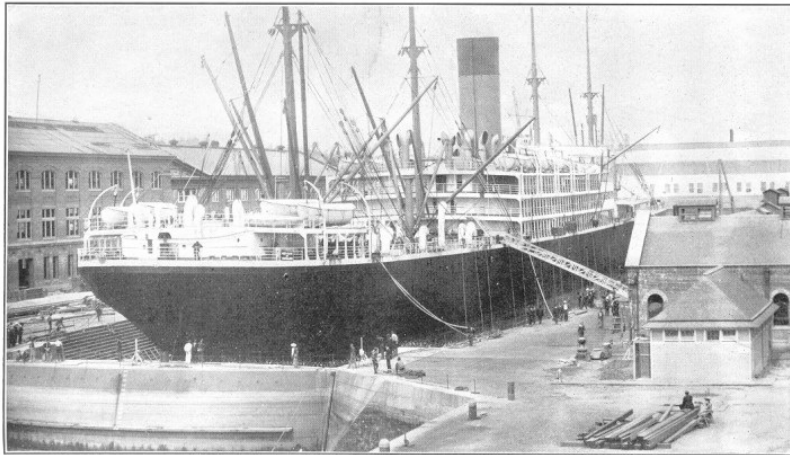


Plate No. 37.—Steamship Dakota in Government Drydock at Navy Yard, Puget Sound, Kitsap County.

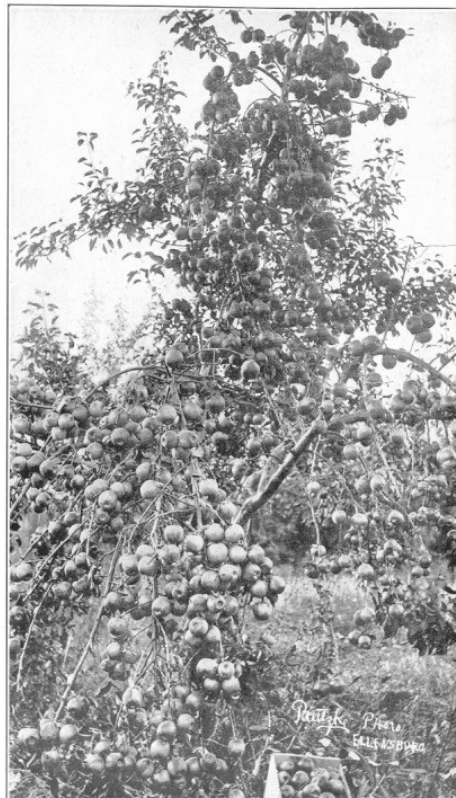


Plate No. 38.—A Kittitas County Apple Tree.

WORK OF THE GOVERNMENT.

The work of reclaiming the arid lands has been wonderfully accelerated and widened in scope by the national government. The projects of the reclamation service now include practically all of the available waters of the Yakima valley for irrigating the lands therein. In Yakima county alone there are probably 260,000 acres now under ditch, and probably 50,000 more will be reclaimed this season. This is probably not more than half the lands in the county capable of irrigation. The fact that the general government is in control of these projects insures as wide and just a distribution of the available waters as possible. The cost of irrigation, which is from \$50 to \$60 per acre, is paid by the owners of the land in ten annual payments. There is also an annual charge for maintaining the canals from \$1.25 to \$1.50 per acre. These projects of the government cover the lands in Benton and Kittitas counties also—both of these counties being in the Yakima valley. The government is also engaged in managing an extensive project in the southern part of Okanogan county, where probably 50,000 acres will be reclaimed.

There is a large acreage in Franklin and Walla Walla counties, about the junctions of the Snake and Columbia rivers, to which Pasco is central, which is arid. The government has once turned this project down, but is now reconsidering it, and it is reported that these lands will soon be put under ditch by the joint action of the

government and the Northern Pacific railway, which owns a large portion of the lands.

Meanwhile private enterprises are reclaiming extensive tracts in Klickitat county, and in fact nearly all the counties bordering on the Columbia and Snake rivers in eastern Washington. It is probable that there are more lands capable of irrigation in the state than can be irrigated with available waters. This fact adds to the importance of the question of what to do with arid lands when no water can be put upon them.

METHODS OF IRRIGATION.

There are three methods in use in supplying water to the arid lands. The first and the one most generally adopted for obvious reasons is the gravity system. The waters are impounded in lakes or artificial reservoirs and carried thence in large main canals, winding about the hills so as to secure a low uniform grade. Once established, no other force is needed but the usual flow of the water.

Another method resorted to when the gravity system is impossible is to pump the water from the big rivers into smaller reservoirs leading to the canals, the pumps being kept busy only during the months in which the water is needed. This method is quite successful, but requires a somewhat larger annual expenditure. It is being used in some extensive projects, the water being taken out of the Columbia river.

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The third method is in securing the water by means of artesian wells. This method is naturally limited to small areas, the projects being undertaken by individual private owners. Several spots have been found in the arid belt where this method is successful.

SOILS.

The soils over the entire areas of eastern Washington on the arid lands is a volcanic ash mixed with disintegrated basaltic rocks and some humus, varying in depth and in the amount of sand it contains. The low lands are usually more sandy and warmer and earlier in season. The depth of this soil is in some places 80 feet and generally so deep as to insure great permanency to its fertility. It readily absorbs and holds moisture, and is admirably adapted to artificial watering. In some spots there is an injurious surplus of alkali. It is generally covered with sagebrush and has the appearance of sterility, but upon cultivation under irrigation, produces wonderful results in quantity and quality of grains and grasses and fruits and vegetables.

GRAINS.

Wheat, oats and corn are successfully grown, but not in large acreage, because larger profits can be realized from other crops.

HOPS AND POTATOES.

Hops, for example, which can be produced at a cost of 7-1/2 cents per pound, yield from 1,500 to 2,000 pounds per acre, and potatoes, yielding from 300 to 500 bushels per acre, and receiving the highest market price, are both more profitable than wheat or oats.

ALFALFA.

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Alfalfa, yielding from eight to ten tons per acre, and commanding from \$6.00 to \$12.00 per ton, is a very profitable crop. Much wheat and oats are cut when in the milk and sold for hay, and yield better returns than when matured and threshed.

FRUITS.

The smaller fruits are very profitable under irrigation, yielding from \$300 to \$500 net per acre, while apples, pears, peaches, grapes, etc., often far exceed these figures, sometimes yielding as much as \$1,000 per acre net.

DAIRYING.

Dairying is extensively followed on the irrigated lands, particularly in Kittitas county, where the cool atmosphere is very favorable, and the farmers find that turning timothy and clover, alfalfa and grain hay into butter fat is more profitable than wheat-raising.

PREPARATION OF LAND.

There is a good deal of this arid land which will have to be freed from the sagebrush and smoothed over before it will be fit for irrigation. This expense, together with building headgates and lateral ditches, building flumes and seeding to alfalfa, will cost from \$15.00 to \$20.00 per acre, depending upon the character of the surface, the size of the sagebrush, and amount of flumes, etc. Some, however, very smooth lands can be prepared for seeding at less expense.

DISPOSITION OF CROPS.

The hay crops are in large part sold on the ground and fed to cattle and sheep which have summered in the mountain ranges and are carried through the winters on the farms in the valleys. What is left after supplying this demand is baled and shipped by rail to the markets on Puget sound, Portland or Spokane. The Sound country is also the chief purchaser of the fruits, although many winter apples, on account of their superior quality, are shipped to eastern markets.

Potatoes and other vegetables usually go west, although an occasional season finds the eastern market depleted, and then the shipments go to the best market.

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Hops are sold to be delivered at railroad stations and go east, many even to Europe.

VALUE OF LANDS.

The irrigated lands are yearly appreciating in value, mindless of the large acreage annually added to the supply. This is largely due to the fact that they are bought up and held for speculative purposes. However, there are still many farms in the hands of first purchasers from the government, and others still to be had directly from the government and others from the Northern Pacific company, not yet under ditches, which may ultimately be reclaimed. These latter can be had from \$7.00 to \$25.00 per acre. The lands already under ditch, or which will soon be irrigated certainly, are held from \$50 to \$100 raw and from \$125 to \$200 with water rights paid for. Much land is on the market, already planted or to be planted to orchards, and cared for, for a term of years until the orchards are in bearing, which can be purchased on easy terms, ranging in price from \$200 to \$500 per acre.

TRANSPORTATION.

Nearness to transportation is a valuable factor in determining the price of lands—whether under irrigation or otherwise. The lands being irrigated in eastern Washington are, for the most part, adjacent to competing railways and water craft on both the Columbia and Snake rivers. Projects are in contemplation by the government and state to remove all obstructions from the Columbia river and give a great navigable stream from Kettle Falls to the mouth of the river. This will add to the shipping facilities by increasing the number of boats which will ply the river and be

of great help to all farmers holding lands adjacent. Numerous trolley lines are already running in many directions—and more are projected—among the irrigated farms connecting with the cities of Spokane, North Yakima, and Walla Walla. These add greatly to the facility and cheapness of transportation.

CLIMATE.

The character of the climate is well suggested by the crops which can be harvested. They include peaches, apricots, grapes, figs, tomatoes, peanuts, sweet potatoes, and other things which require a warm summer and warm soil. Very little moisture comes upon the land in the summer. The winters are moderately cold, with some snow, which is joyfully hailed by the farmers, for all moisture is quickly absorbed by the soil and held for summer's use. The spring season is two or three weeks earlier than in the Puget sound basin. Moderate winds prevail during the summer months, coming from the east and west by turns, and prevent excessive sultry weather.

OCCUPATIONS.

Aside from the ordinary agricultural pursuits suggested by the foregoing, which includes grain-growing, horticulture, dairying and truck gardening, should be mentioned stock-raising, particularly of sheep, many thousands of which are yearly wintered in the valleys and summered on the ranges. Bee culture and poultry-raising are also both becoming important.

In closing, it should be said that the activity of the government and private investors together has given a great impetus to the settlement of these arid lands, and the population is rapidly increasing, being made up of a miscellaneous assortment of Uncle Sam's energetic, wideawake, industrious citizens, building homes and making fortunes more rapidly, probably, than in any other part of irrigated regions in his domain.

The doors are open, too, for the newcomers, for ten times the population now there can well be made prosperous.

THE COUNTIES AND MORE IMPORTANT CITIES AND TOWNS OF WASHINGTON

ADAMS COUNTY

LOCATION.

Adams county is in the center of southeastern Washington, cut out of the once great desert plateau, covered with sage brush. It has developed into one of the most important food-producing counties of the state. It has a population of about 13,000 and covers 1,908 square miles of territory.

CLIMATE.

Its climate is not different from that of the balance of the district in which it is situated, and, although some days in winter are severely cold and some in summer hot, its dry atmosphere softens the asperity of its cold, and its generous crop yields are full compensation for the heat of the summer's sun. Its mean temperature ranges from 30 degrees to 40 degrees in winter and from 50 to 74 degrees in summer. Its usual coldest days are 20 degrees to 25 degrees and its hottest ranging above 100 degrees. Its rain and snow give about 12 inches of water. It has one small stream, a tributary of the Palouse river.

TRANSPORTATION.

The Northern Pacific railway cutting the county diagonally from northeast to southwest and the Oregon Railroad & Navigation railway across its southeast corner and near its south and west borders furnish good facilities for handling its generous wheat crops. To these are soon to be added the Chicago, Milwaukee & St. Paul, the Portland & Seattle, and the North Coast roads, giving the county very superior railroad facilities.

INDUSTRIES.

Wheat is its great staple crop, and the last year out of a crop acreage of 275,000 gave to the world nearly 6,000,000 bushels, an average of upwards of 20 bushels to the acre. When this average is compared with that of the wheat fields of the Mississippi valley, it is no wonder that the value of its realty has increased for the purposes of taxation more than 300 per cent. in the past six years. Horses, cattle, hogs and sheep are to a limited extent raised on the farms, and are important adjuncts to its prosperity.

PRINCIPAL CITIES AND TOWNS.

Ritzville is the county seat, and has a city hall, electric lights and water system, flour and feed mills, and is the chief distributing center of the county.

Lind will be one of the important points on the Chicago, Milwaukee & St. Paul railway, now building across the county.

Washtucna also is to have another outlet for its wheat over the Portland & Seattle railway, projected and building. All these towns have good schools, churches, warehouses, mercantile establishments, and all enjoy an abundance of prosperity from the marketing of the crops.

ASOTIN COUNTY

LOCATION.

Asotin county occupies the extreme southeastern corner of the state, being separated from Idaho on the east by the Snake river and from Oregon on the south by the state boundary. Its population is about 7,500, its area 640 square miles.

It takes in a portion of the Blue mountains, from which numerous small streams furnish abundant water for all domestic farm purposes and for irrigating quite a large area of lands, which makes the county ideal for the stock-raiser and fruit-grower.

INDUSTRIES.

The irrigation of the low lands has had a wonderful effect in stimulating the fruit industry, and resulted in a great advance in land values, particularly about Clarkston and Cloverland, while the cool water of the mountain streams and their grassy slopes make the dairy business especially profitable. General farming, however, is still the standby of the bulk of the population. At Clarkston the lands irrigated and planted to orchards have reached in many instances a value of \$1,000 per acre, the waters being taken out of Asotin creek. About Cloverland, waters from George creek have wrought almost an equal increase in values. Cloverland is on a plateau about 2,500 feet above sea level, and the lands irrigated and planted to winter apples are paying handsome dividends to their fortunate

owners. On ordinary farm lands wheat yields 25 to 50 bushels per acre and barley from 40 to 60 bushels per acre.

TRANSPORTATION.

The transportation is limited to the power of steamboats on the Snake river and the Oregon Railroad & Navigation railway, which is reached at Lewiston, across the river from Clarkston.

PRINCIPAL CITIES AND TOWNS.

Asotin, the county seat, situated about seven miles south of Clarkston, on the Snake river, has about 1,500 people within its borders. It has a flour mill, warehouses, churches, schools, public library, light and water systems, and is a prosperous, thriving town.

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Clarkston, an important commercial center, is situated on the flats of the Snake river, in the northeast part of the county. Its population somewhat exceeds that of Asotin. It has all the business institutions of a thriving town, is the main distributing point for a large area, and is rapidly growing.

Cloverland, Craigie and **Anatone** are thriving smaller towns.

BENTON COUNTY

Benton county is bounded north, east and south by the Columbia river and west by Yakima and Klickitat counties. It has an area of 1,600 square miles and a population of about 9,000 people.

TOPOGRAPHY.

The Yakima river traverses the center of the county in a very crooked course, through the valley of which the Northern Pacific railroad winds its way to the top of the Cascades. Both north and south of the valley of the Yakima are extensive hill and plateau lands, which are being rapidly utilized for general farming. The valley lands are arid and useless without irrigating water.

IRRIGATION.

Extensive irrigation projects are in successful operation and projected to bring a very large portion of the valley lands into successful use, for these lands, when irrigated, are of unsurpassed fertility. Lands capable of irrigation have rapidly risen in value during the past few years because of the immense yields of all crops under irrigation.

TRANSPORTATION.

The Northern Pacific railway through its center, the Portland & Seattle around its southern and eastern border and the North Coast coming into the Yakima valley from the northeast and the southeast, together with the shipping on the Columbia river, give abundant means of marketing its products, while several local electric roads are projected to connect its towns and help to open up the newly developed portions of the county.

IMPORTANT INDUSTRIES.

General farming on the uplands, truck-gardening and fruit-raising on the irrigated lower lands are the chief occupations. On account of the great fertility of the volcanic soils and the early springs, Benton county is able to supply the large towns with fruits and vegetables some two weeks earlier than most other sections, giving it quite an advantage in prices. The county is rapidly growing in population and prosperity.

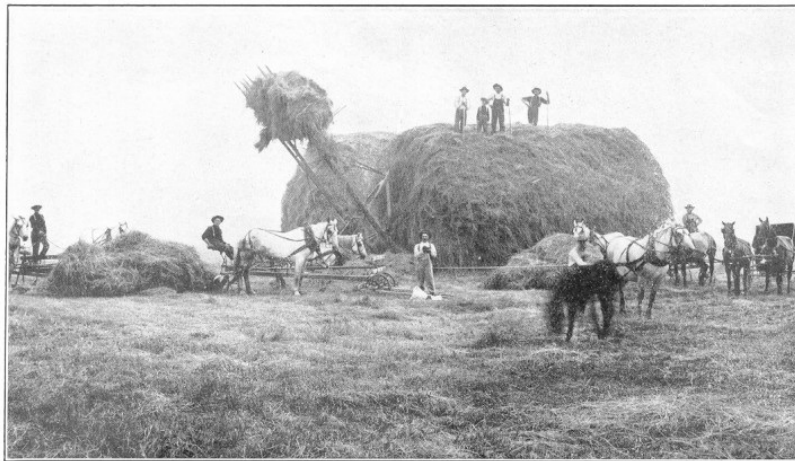


Plate No. 39.—Stacking Hay in Kittitas County.

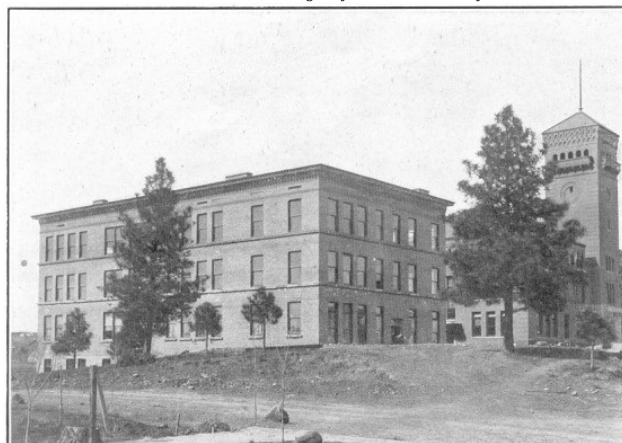


Plate No. 40.—New Training School, Ellensburg, Kittitas County.

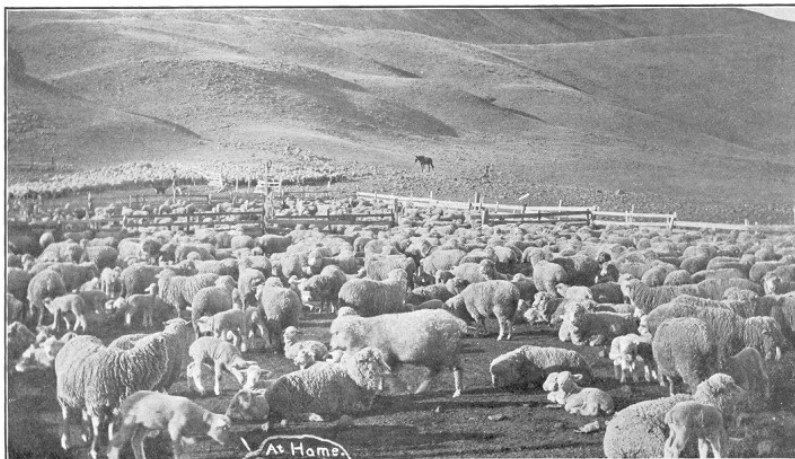


Plate No. 41.—Sheep-Raising in Klickitat County.



Plate No. 42.—Wheat-Raising in Klickitat County.



Plate No. 43.—Eighty-Acre Orchard in Klickitat County.



Plate No. 44.—Manufacturing Scenes, Chehalis, Lewis County.

PRINCIPAL CITIES AND TOWNS.

Prosser, its chief town and county seat, is on the Yakima river and Northern Pacific railway in the western central part of the county, and has about 2,000 population. It is the chief distributing center of the county. It has three weekly newspapers, six churches, good water supply, banks, stores, warehouses, lumber yards, etc.

Kennewick, at the easterly center of the county, on the Northern Pacific and Portland & Seattle railroads and on the Columbia river, is a town of much importance, having about 1,500 people. It is noted for the remarkable earliness of its fruits and vegetables. It has the usual business, church and school establishments, including an ice

and cold storage plant.

Kiona, on the Yakima river, midway between Prosser and Kennewick, **Carley** and **Peterson**, in the southern portion of the county, on the Columbia river, are all growing and prospering smaller towns.

CHEHALIS COUNTY

Chehalis county is central among the counties bordering on the Pacific, the towns about Grays Harbor being its seaports. It has an area of 2,600 square miles and a population of 35,000.

RESOURCES.

Its industries arise out of its vast timber belts, its fertile low lands, and its fisheries. It is said to have 800,000 acres of magnificent timber lands, the great bulk of it unmarketed. Logging and the manufacture of wood products make up its chief occupation, though general farming and fruit-raising is rapidly gaining. The lands of the county when reclaimed from the forests are fertile and respond generously to the labor of the husbandman. In 1906, 15,000 apple trees were planted in the county. The fishing industry, including the canning of salmon, sardines, clams and oysters, is a thriving industry and destined to develop into much larger proportions.

TRANSPORTATION.

Grays Harbor is open to the ocean, but is splendidly protected and has safe anchorage. It is the largest lumber shipping port in the state. The Humptulips and Chehalis rivers empty their waters into the bay, and are both navigable for some distance.

In addition, the Northern Pacific railroad skirts both sides of the bay and a logging railroad from Shelton, in Mason county, has nearly reached the ocean, going through the county from east to west. Other railroads have surveying parties in the field, and a conflict is on to share the vast lumber-carrying trade of the county with the Northern Pacific, which has till now monopolized it.

Chehalis county is one of the most important counties in the state, and offers an abundant opportunity for Yankee energy to exercise itself in almost every avenue of business. Its opportunities and resources are numerous and vast. The newcomer may look long and find no better place for his talents.

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PRINCIPAL CITIES AND TOWNS.

Montesano is the county seat, located at the head of navigation on the Chehalis river, and on the Northern Pacific railway. It has a population of about 3,500. It has sawmills, sash and door factories, and is surrounded by a prosperous farming community, dairying being very remunerative.

Aberdeen is the commercial metropolis of the county. Nearly \$15,000 is daily paid out to wage-earners. Much commerce from the ocean is centering here, 736 vessels clearing from Grays Harbor in 1907. Seven hundred and seventy-seven thousand dollars has been appropriated by congress for the improvement of the harbor. The city has terminal rail rates, and the Northern Pacific and Chicago, Milwaukee & St. Paul railroads are hustling after its trade. The business portion of the city is built of stone, brick or cement. It has eleven large sawmills, many shingle mills and various other factories for utilizing the products of its timber, besides fish and clam canneries and other factories. Its population, now about 15,000, is rapidly growing.

Hoquiam, Aberdeen's nearby neighbor, has a population crowding 11,000, and is a hustling manufacturing and commercial center, not different in its general business from Aberdeen.

Elma, twelve miles east of Montesano, is a town of 2,700.

Cosmopolis, south of the river from Aberdeen, has about 1,200, and is a sawmill town.

Oakville, **Markham** and **Satsop** are small growing towns on the Northern Pacific railway. Many other embryo towns will in time grow into prosperous business centers.

CHELAN COUNTY

Chelan county is one of picturesque beauty and abundance of both developed and undeveloped wealth. It faces the Columbia river eastward, while its back rests against the peaks of the Cascades, 5,000 to 6,000 feet above the sea. Lake Chelan is the largest fresh water body in the state, fifty miles long and one to four wide, and lies 400 feet higher than the Columbia river.

Chelan county has 2,000 square miles, much of it mountainous and full of minerals. Its population is at present about 14,000.

RESOURCES.

Horticulture, agriculture, lumbering, stock-raising, mining and dairying all flourish on the bountiful natural fitness of the county for these occupations. The climate is attractive. It is a sunshiny county.

TRANSPORTATION.

Steamers ply up and down the Columbia river. The Great Northern railway crosses the county through the valley of the Wenatchee river and the Washington & Great Northern railway is projected along the western boundary of the Columbia river.

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PRODUCTS.

All kinds of temperate zone fruits mature here in wonderful perfection and abundance. The valleys run with water from the mountains to irrigate the lands, and furnish vast power, much of it undeveloped. Hills in the western part of the county are timbered and all the vacant lands are grass covered. Over 1,000,000 fruit trees have been planted in the last three years in the county.

The mountain foothills are full of mineral veins of copper, gold, silver, lead and molybdenite. Some have been producing for twenty years. Trout in the streams and game on the hills add to its attractiveness.

PRINCIPAL CITIES AND TOWNS.

Wenatchee is the county seat and largest town, having about 3,500 people. It is located on the Columbia river near where the Great Northern railway crosses it. It is the chief distributing center for the county and much other territory, chiefly north of it.

Leavenworth, westward of Wenatchee, and also on the railroad, has a population of 1,200 and is a division point.

Chelan, at the foot of Lake Chelan, has about 700 people.

Cashmere, on the railroad, is of about equal size.

Lakeside, Peshastin and **Entiat** are smaller towns, all thriving and growing.

CLALLAM COUNTY

Clallam county occupies 2,000 square miles of the northwestern part of the Olympic peninsula, having 35 miles of shore land on the Pacific and 90 miles on the straits. The Olympic mountains and foothills cover the southern half mostly, while the northern half is made up of lower hills and valleys. Several large lakes nestle among the mountains; one of them, Lake Crescent, is a famous summer resort. Lake Crescent is known as the home of the celebrated Beardslee trout. The eastern and southern parts have a rainfall sometimes nearing 100 inches annually, while in the eastern northerly part it is about 20 to 25 inches only.

An important section of the county is that known as Sequim Prairie This is a level district of about 5,000 acres, located three miles back from Port Williams. Most of it is under irrigation, and the soil thus treated produces marvelous crops.

RESOURCES.

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Lumber, fish, agricultural products and coal comprise its chief resources. The timber of the county is very vast and very little exploited. Its proximity to the ocean makes it very advantageous for all fishing industries. Its valleys are noted for the fertility of their soils, and many a farmer has grown wealthy from their cultivation.

TRANSPORTATION.

Facilities for getting about are limited to boats and wagons. A splendid boat service is maintained with Seattle and other Sound ports, and a system of public roads is now in process of construction that will be unexcelled in the state. Several surveying parties are now in the woods and it is believed that Grays Harbor and the Straits of Juan de Fuca will be soon united with railroad iron and Clallam county will come to its own.

PRINCIPAL TOWNS AND VILLAGES.

Port Angeles, located about 60 miles from the ocean on the Straits of Fuca, is the largest town and county seat. It has a splendid harbor, with fine anchorage, furnishing a safe refuge for ships when the storms rage outside.

Dungeness and **Sequim**, three miles from **Port Williams**, are important farming centers, both noted for their dairy products, and contribute largely to make Clallam the second county in the state in the value of its dairy products.

Quillayute, Forks, Beaver, Blyn and **Gettysburg** are other small settlements waiting for the railroads to open up the country and render their natural resources available for the good of the world.

CLARKE COUNTY

Clarke county lies on the north shore of the Columbia river, opposite Portland, Oregon. It has 600 square miles of territory. It was one of the earliest settled parts of the state, and its timber as yet uncut is large. It is extremely well watered. The Columbia and Lewis rivers border it on three sides with navigable waters. It has a mild climate, very fertile soil, and splendid markets at its doors, abundant rainfall, and agriculture is successfully carried on without irrigation.

TRANSPORTATION.

The Northern Pacific railway connects its various towns with both Portland and Seattle, and the North Bank and Oregon & Washington railroad, paralleling the Northern Pacific, will add greatly to the facility and cheapness of its transportation. From Vancouver northeasterly a road is in operation nearly across the county, headed for North Yakima and the East.



Plate No. 45.—Mt. St. Helens and Reflection in Spirit Lake, Lewis County.



Plate No. 46.—LEWIS COUNTY SCENES. Dairy Farm and Hop Field. A Valley Ranch.

INDUSTRIES.

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Much of the southern part of the county is devoted to fruit-raising, prunes being a very prominent factor in the county's output. General agriculture, with dairying, are very profitable, and to these are to be added fishing, lumbering and mining.

PRINCIPAL CITIES AND TOWNS.

Vancouver has a population of about 8,000, and is rapidly growing. It is the county seat, and is connected with Portland, Oregon, by a trolley line. The Northern Pacific, Union Pacific, Oregon Railroad & Navigation and North Bank railroads all compete for its traffic. It is the central distributing point of the county, and is the United States military headquarters for Washington, Oregon and Alaska. It is well represented in business establishments, including barrel factory, fruit cannery, ship yard, iron foundry, shoe factory, and others.

La Center, Etna, Nacolt, Amboy and Brush Prairie are smaller towns, all holding out an inviting hand to the newcomer, and offering desirable opportunities for new business in both merchandising and agriculture, as well as in lumbering and its kindred industries. Clarke county is one well worth investigating by intending settlers, both on account of its latent possibilities and because of its peculiarly desirable climatic conditions, and its abundant competing transportation facilities, both by rail and water.

COLUMBIA COUNTY

Columbia county is one of the four counties in southeastern Washington, lying on the Oregon state line and south of the Snake river. A forest reserve in the Blue mountains covers much of the southern portion of the county, which is heavily timbered. The Northern part of the county is made up of rolling prairie lands, of great fertility on account of the large proportion of clay added to the volcanic ash, which composes most of the soils of eastern Washington. Irrigation is here unnecessary, and abundant crops reward the agriculturist. The climate is mild, healthful and vigorous, inclining to much outdoor life the year around.

PRODUCTS.

Columbia county is essentially an agricultural county, but of late years is branching out into fruit-raising and dairying with marked success. Apples and pears predominate among the fruits, though all others do well. Wheat is, however, still its great product, and both the Northern Pacific and Oregon Railroad & Navigation railroads are in operation through the northern part of the county to carry away its rich grain harvests.

The citizens of Columbia county are among the most prosperous of the state, its average of per capita wealth being exceeded by only three other counties.

PRINCIPAL TOWNS.

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Dayton, the county seat, has a population of about 3,500 people, is situated about in the center of the county, and is the chief town for the county's exports, as well as the distributor of its merchandise. It is a substantially built city, with flour and feed mills, and general mercantile establishments of importance. All the public interests, including schools and churches, are generously provided for. Its chief exports are grain, fruit, livestock and wool.

Starbuck, in the northern part of the county, is a shipping point of no mean importance on the Oregon Railroad & Navigation railway.

COWLITZ COUNTY

Cowlitz county lies immediately north of Clarke county, bordering about 40 miles on the Columbia river. It has about 1,100 square miles of territory, and about 13,000 people. The southwestern portion is largely composed of level valley lands, while its northeastern part is occupied by the foothills of Mount St. Helens. The drainage is all westerly and southerly into the Columbia river. Cowlitz river is navigable as far as Castle Rock, and is an important factor in the transportation problem.

RESOURCES.

Timber is the great source of industry at present, the county having about two-thirds of its area heavily covered and unexploited. About 40 saw and shingle mills are engaged in disposing of its logs. Agriculture follows close on the heels of the lumberman everywhere in western Washington, and nowhere are better results in general farming and dairying obtained than in Cowlitz county.

Cowlitz coal fields have not yet been largely utilized, but will be extensively developed in time.

TRANSPORTATION.

Aside from the river navigation, this county is well supplied with transportation facilities by rail. The valley of the Cowlitz river affords the natural highway for roads between the Columbia river and Puget sound, and is already traversed by the Northern Pacific, while the Union Pacific systems and the North Coast road are projected over practically parallel lines through the county. From Kalama all three systems extend south to Portland and Vancouver.

PRINCIPAL CITIES AND TOWNS.

Kalama, on the bank of the Columbia river at the ferry crossing of the Northern Pacific railway, is the chief town and county seat. There are here extensive electric power plants and a gravity water system. The chief industries grow out of the lumbering and fishing interests. It has about 1,250 people, but is just now rapidly growing, owing to its superb transportation facilities by both rail and water.

Kelso and **Castle Rock** are both important towns on the railroads and Cowlitz river, each having about 1,500 people. At Kelso, which is near the Columbia river, considerable fish are caught and packed, yet the timber furnishes the chief industry. Fruit and dairying and general agriculture provide a large part of the support for the town merchants.

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Ostrander, Carrolton, Catlin, Ariel and **Lexington** are smaller towns, all prospering and being built up into substantial business centers by the steadily increasing development of the latent resources of the county.

This county offers many opportunities for business to the newcomer in either merchandising, manufacturing or farming.

DOUGLAS COUNTY

Douglas county occupies the big bend of the Columbia river, having about 1,800 square miles of territory. Formerly there were 4,500 square miles. The last legislature carved the county in two, giving Grant county the southeastern part, about 2,700 square miles of territory, and leaving 1,800 to the northeastern part, with the old name. The bend of the Columbia on the northeast and Grant county on the southeast, compose its boundary. This division boundary follows the northeastern bank of the Grand coulee, and following its general direction meets the Columbia river where the Great Northern railroad touches its valley, thus putting all of that railroad in this new county, excepting only a few miles of the railroad along the banks of the river in the southeastern corner of Douglas county. Douglas county is essentially a high plateau, some of it 1,500 feet above the main bank. Waterville is the county seat, and considerable land along the valley of the Columbia is being irrigated and proving to be of great value for fruit and grain growing.

In the southeastern part of the county are some lands covered with black basaltic rocks, but the great bulk of the lands are rich in a volcanic ash soil, and produce large crops of grain without irrigation. A wrong view of the county can easily be impressed upon the traveler by rail; he will see so many of the basaltic rocks from the car windows but once up out of the canyon which the railroad follows, he will find himself in view of an expanse of wheat fields so vast and rich as to astonish him.

RESOURCES.

As already indicated, this county is essentially a grain producer. Wheat and oats are marketed in large quantities. Fruit-growing and stock-raising are important adjuncts to the county's wealth. It is comparatively new, and lands can be had at very reasonable prices.

TRANSPORTATION.

As now constituted, Douglas county will rely wholly upon the steamboat crafts on the river to get its grain to market. Its trade, however, is too vast to be passed by, and already two lines of railroad, the Washington & Great Northern and North Coast, are projecting into the very center of its vast wheat fields. With these roads completed as projected, Douglas county will have easy access to both water and rail transportation, and renewed importance will be given to its farming industries.

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CITIES AND TOWNS.

Waterville is its chief town and county seat. It is among the wheat fields, in a broad plain, about seven miles east of the Columbia river, to which it is connected by good roads for stages and freight wagons. It has one of the U. S. general land offices. It has good schools and churches, water and electric lighting systems, both owned by the city. It has a population of about 1,200 people, and is well supplied with business houses, flour and feed mills, a brick yard, bank, etc.

Bridgeport, a town of some 400 people, is situated in the northern part of the county on the Columbia river east of its junction with the Okanogan river, and is an important wheat-shipping point, having a regular steamboat service. A bank, flour mill, warehouses and general stores are serving the community, but other industries await the newcomer.

Douglas, Farmer, Jameson, Mansfield and **Hollister** are growing agricultural centers.

FERRY COUNTY

Ferry county is about in the center of the northern part of eastern Washington, stretching from the northern boundary of the state to the Columbia river, which marks its southern and southwestern boundary. The southern half of the county is within the Colville Indian reservation, and is therefore wholly undeveloped. The lands, however, have in fact been allotted and the remainder will be thrown open for settlement in the near future.

Altogether it has an area of 2,200 square miles, and a population of 5,000. It is principally composed of low mountains, well timbered, with valleys furnishing fine grazing.

CLIMATE.

The climate of the county is such as prevails generally in northeastern Washington—a couple of months of snow in winter, affording plenty of sleighing, skating, etc. Summers are very pleasant, and spring and fall delightful.

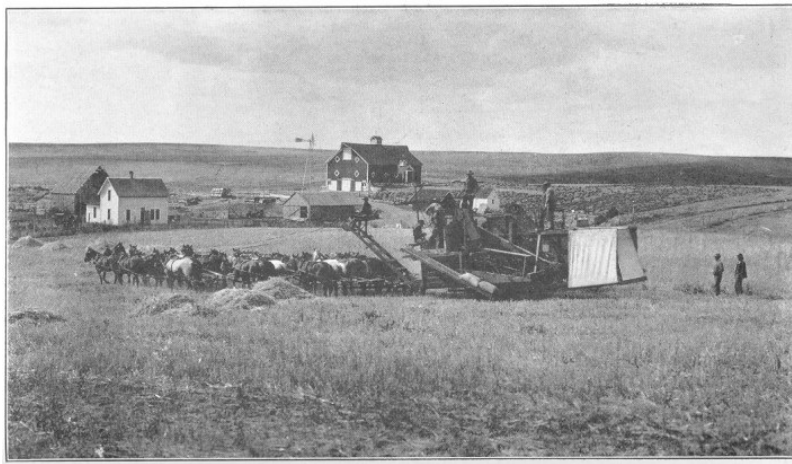


Plate No. 47.—A Ranch Scene in Lincoln County.

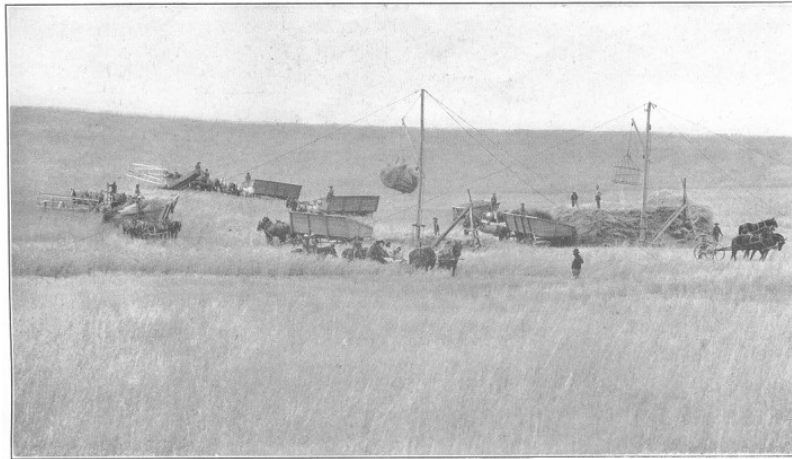


Plate No. 48.—Harvest Time in Lincoln County.

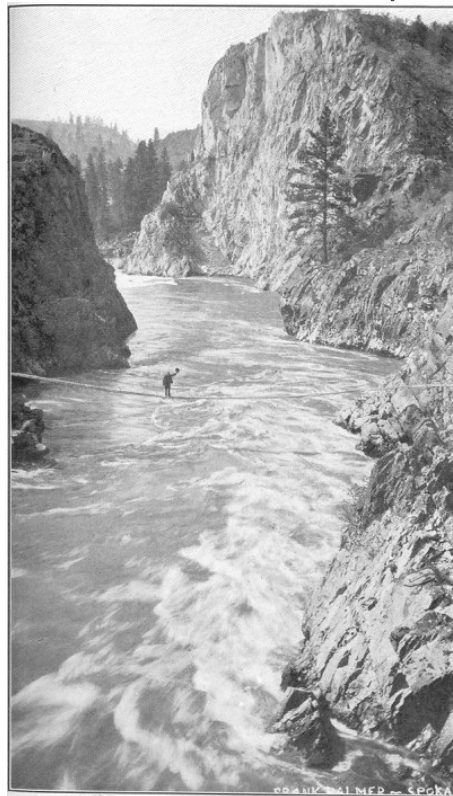


Plate No. 49.—View of Spokane River in Lincoln County, Showing Possibility of Power Development.



Plate No. 50.—Mason County Timber.



Plate No. 51.—Dairy Scene in Mason County.



Plate No. 52.—Oyster Beds in Mason County.

RESOURCES.

The bulk of the resources of this county are yet dormant. The mountains are full of minerals; timber is abundant; grassy hillsides are tempting to the sheep and cattle, while the soil is rich, and when tilled will be found to produce excellent crops. The county has a fine future for wealth from all these sources, and, while the mines are first to be made productive, without doubt the fruits and cereals will come into their own in time and furnish much of its wealth.

TRANSPORTATION.

Two railroads reach the center of the northern half of the county, terminating at Republic, the county seat. These railroads have pushed in here after the precious metals mined in the vicinity.

The Columbia river is navigable most of its course on the county boundary, barring some obstructions which the national government will remove and thus open up to river navigation to the ocean the fruits of toil in Ferry county.

CITIES AND TOWNS.

Republic, the county seat, is the only large town in the county, and has a population of about 1,250 people.

It is the distributing point for supplies for the mines and ships out much ore for the smelters.

Ferry county altogether offers exceptional opportunities for the homeseeker in a variety of occupations, as already indicated.

FRANKLIN COUNTY

Franklin county occupies the basin formed by the junction of the Columbia and Snake rivers, being bounded east, south and west by them. The southern portion of the county is scarcely 300 feet above sea level, and the soil is fine and sandy. The northern part of the county is somewhat higher and composed of successive benches till they reach an altitude of 1,000 feet. It is only a few years since these lands were all considered barren and useless. Yet in 1906 these bench lands in this county added 1,500,000 bushels of wheat to the world's supply and in the following season nearly doubled that output.

There are no forests, the land being covered with bunchgrass and sagebrush.

IRRIGATION.

Along the rivers some farmers have irrigated small parcels of land by pumping water, but the bulk of the irrigable lands are awaiting the action of the U. S. Reclamation Service, which it is thought will ultimately be engaged in an extensive irrigation problem to reclaim thousands of acres now arid and barren. The warm climate of these low Bandy lands has already been proven to be immensely advantageous to the gardener and fruit-grower, and the lands wonderfully productive when the magic influence of plenty of water renders the sources of plant life soluble.

The wheat crops now being produced come from the bench lands without irrigation.

TRANSPORTATION.

The Northern Pacific railway passes diagonally through the county and crosses the Columbia river near Pasco. The Oregon Railroad & Navigation railway taps the wheat belt in the northern part of the county and the North Coast is projected through it, while the Portland & Seattle follows the north bank of the Snake river along its southwestern boundary, thus giving the county four systems of railroad, besides the Columbia river steamboats.

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PRINCIPAL CITIES AND TOWNS.

Pasco is the county seat, in the extreme southern portion of the county, near the Columbia river, and is more noted as a railroad center than as a shipping point, on account of the fact that the surrounding lands are as yet unirrigated. It has a population of about 1,800, and is just now enjoying new vigor and much building in anticipation of its future usefulness as a commercial center for distribution of both merchandise and agricultural products.

Connell, in the northern part of the county, is a shipping point of importance, and has two railroad lines and a third one coming. In addition to the cereals, many sheep and horses are being raised and shipped out of the county from this vicinity.

GARFIELD COUNTY

Garfield county is the second from the southeast corner of the state, and extends from the Snake river on the north to the state boundary on the south. It has 627 square miles of territory and a population of about 7,000.

The southern portion is included in the Wenaha forest reserve, and is quite heavily timbered. The northern portion is an extremely prolific farming region, made up of undulating lands with deep rich soil, composed of clays and volcanic ash. No irrigation is necessary, and very heavy crops of grain are annually matured.

RESOURCES.

As already intimated, the chief source of income for the county comes from the tillage of the soil. Of the crops raised, barley is in the lead, having furnished 1,800,000 bushels in 1907, which places this county second of all counties in the state in the production of this cereal. Wheat and oats are also largely produced. Stock-raising in the southern ranges of the county is very profitable, and much fruit is of late years being produced. Indeed, Garfield county is well up to the front in the per capita wealth of its citizens.

PRINCIPAL TOWNS.

Pomeroy is the county seat and chief distributing center of the county. It is situated in the north central part of the county, on the Pataha river and the Oregon Railroad & Navigation railway. It has a population of nearly 2,000.

It is lighted with electricity, has a gravity water system, and all the machinery for doing all the business naturally coming to a town of its size. It has a fine high school and graded schools, churches, newspapers, banks, warehouses, big stocks of goods, fire department, cet.

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GRANT COUNTY

Grant county occupies about 2,700 square miles of what was formerly Douglas county, comprising the lands southeast of the Grand and Moses coulees, bordering on the southwest on the Columbia river, with Adams and Lincoln counties on its eastern border.

Ephrata is the county seat, on the Great Northern railway. The northern part of the county is traversed by the Great Northern railroad, and has developed into a vast region of grain production without irrigation, although originally supposed to be valueless for cereal-raising.

The southern part is new and comparatively undeveloped, but is crossed by the Chicago, Milwaukee & St. Paul railway, just now giving this new county great impetus. The southern portion of the county has long been a grazing ground for herds of cattle and horses, but it is thought now it will be turned into a prosperous region of small farms.

While the county is cut by several coulees, it is chiefly composed of large areas of bench lands, comparatively level, barring a range of hills in its southwestern corner called Saddle mountains. There is considerable water in the county, Moses lake being quite a large body of water with bordering swampy lands, about in the center, and Wilson creek, in the northern and Crab creek, in the southern part, furnishing considerable stock water.

LANDS.

The lands tributary to the Great Northern railway already produce great quantities of grain and livestock, and these will continue to be its staple crops until irrigation may come in and stimulate fruit production, for which it is thought much of the lands will be suitable.

TRANSPORTATION.

Both the Great Northern and Northern Pacific railway systems are in the grain fields of the northern part of the county. The Milwaukee road crosses the southern part, the N. & S. is projected along its western border, paralleling the Columbia river, which is navigable, thus affording all the county, excepting the central portion, good facilities for marketing its products. As the county develops, beyond question branch lines will penetrate this portion, and Grant county will become as well supplied as any other portion of the state with facilities for commerce.

CITIES AND TOWNS.

Ephrata, the county seat, is a small village on the Great Northern railway about midway of the county and the center of a large wheat-growing section. Its transformation into an important town is rapidly going on, the new county government calling for a variety of new occupations to center here.

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Wilson Creek, near the eastern border of the county, is a larger town whose chief industry is marketing grain. It is an important distributing point, with prospects of larger growth.

Quincy is a station on the Great Northern and is also an important wheat-shipping point.

Soap Lake, on a lake of the same name, is noted as a resort for the rheumatic.

Bacon, Coulee City, and Hartline are stations on the Northern Pacific railway in the northeastern part of the county.

Grant county is new, but has large undeveloped resources, and is awaiting the newcomer with abundant offerings for his energy and labor.

ISLAND COUNTY

Island county is entirely composed of a group of islands in Puget sound, the largest two being Whidby and Camano. It has a land area of 227 square miles and a population of about 5,000.

RESOURCES.

Lumber, agricultural products and fish make up the county's resources. Considerable of the timber, particularly from Whidby island, has been removed, and wheat, oats, hay, potatoes, fruits, poultry, butter, eggs, etc., are now shipped out to the splendid nearby markets at the chief seaport towns on Puget Sound.

The soils in the northern part of Whidby island are of remarkable fertility, some of them producing as much as 100 bushels of wheat per acre and immense crops of potatoes.

In season the waters of the county abound in salmon and other salt water fish, and many of the citizens of the county find profitable employment in connection with the fishing industry.

PRINCIPAL TOWNS.

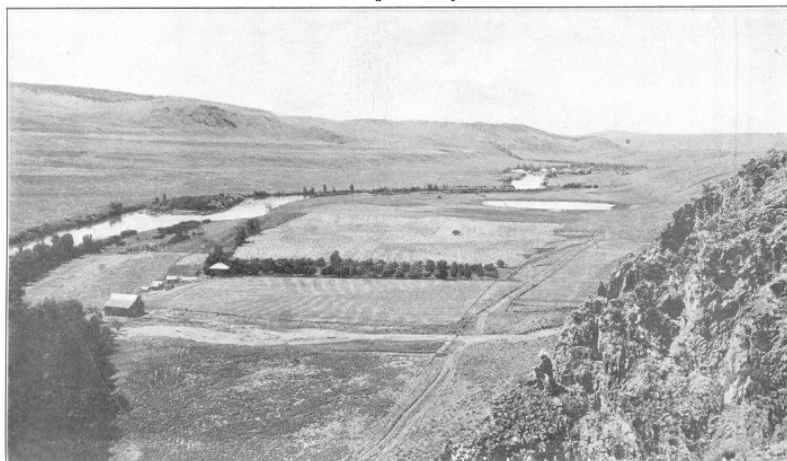
Coupeville is a town of some 400 people and the county seat, situated on a beautiful bay in the northern part of Whidby island. It is chief distributing point for the county, has a sawmill, shingle mill, fruit-drying establishment, stores, churches, schools, a newspaper, etc.

Oak Harbor, further north, is the center of a large farming and logging district. Two canneries are in successful operation.

Utsalady, San de Fuca, Camano, Clinton, and Langley are smaller villages gradually becoming summer resorts for people from the large cities of the sound. Steamboats furnish good transportation from all parts of the county.



Plate No. 53.—An Okanogan County Orchard in Bloom.



JEFFERSON COUNTY

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Jefferson county is the second county south of the entrance of Puget sound, stretching from the Pacific ocean eastward over the peaks of the Olympic mountains to Hood's canal, and turning north gets a long waterfront also on Puget sound, and taps the Straits of Fuca. It has a population of 11,000 people and 2,000 square miles of territory.

RESOURCES.

The resources of this county are largely undeveloped, and yet it is one of the oldest settled counties in the state. Originally its entire area, barring a few small patches, was heavily timbered, and it is estimated that the county still has twenty billion feet of standing timber. Its soil is remarkably fertile, and the products of its farms have long been famous.

The Olympic mountains contain veins of precious metals, iron and manganese, none of which have as yet been thoroughly developed.

Fishing for salmon, sardines, shrimps, clams and crabs is a very important industry.

SOILS, CLIMATE AND PRODUCTS.

The soils of the county are largely sedimentary, having been washed down from the mountains for ages, assisted by the decomposition of vegetable matter accumulated through centuries. In the valleys, where most of the farming is being done, these soils produce remarkable crops under the influence of the charming climate the county affords.

The rainfall in the eastern part of the county is moderate, but ample for all purposes; the average rainfall is about 20 inches. The temperature rarely exceeds 80 degrees in summer, while the winter months average about 45 degrees.

Such soils and such climatic conditions combine to force wealth upon every industrious tiller of the soil. Clover yields from four to six tons per acre.

Oats and vetches for ensilage purposes yield five to seven tons per acre. Fifty to seventy-five tons of cabbage or mangles per acre are not uncommon, and onions and potatoes produce from six to ten tons. The fruit trees, particularly cherries, apples, and pears, produce wonderful crops. Cattle can graze ten months in the year or more, and the products of the dairies of Jefferson county cannot be excelled.

Because of the light rainfall and moderate weather, this county is admirably suited to poultry-raising. Green food can be had twelve months in the year. Runs can always be open, and with proper care hens can be made to pay \$3.00 per year each.

PRINCIPAL CITIES AND TOWNS.

Port Townsend, at the entrance of Puget sound, is the county seat and chief commercial center of the county. It has a population of about 6,000. It is the headquarters for many government institutions, including the U. S. customs service, U. S. revenue cutter service, marine hospital service, hydrographic service, quarantine service, and U. S. artillery for the Puget sound district.

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Three great forts; Worden, Flagler, and Casey, are located here, forming the chief defense to Puget sound. Fort Worden joins the city limits. The present garrison force is 2,000. The scenery from the city is grand and beyond compare.

Its business interests are varied and extensive. Two canneries for salmon and sardines are here located, boiler works, a machine shop for building electric and gasoline engines, a shipyard, sash and door factory, lumber mills, and shingle mills, a by-product plant producing wood alcohol, turpentine, etc.

The city is substantially built and its homes are artistically created.

The harbor has twenty-five miles of waterfront and fine anchorage of from nine to eighteen fathoms, and is an ideal refuge for all seagoing craft.

The city has gas and electric lights, paid fire department, fine churches, splendid schools, and a magnificent gravity water system furnishes the town of Irondale, Hadlock and Forts Worden and Flagler, having plenty of water to spare for thousands mote.

Irondale is practically a suburb of Port Townsend, having the only pig iron plant in the state. It is an extensive and growing concern, using bog iron from the vicinity and other ores from different sources.

Port Ludlow, Duckabush, Bogachiel, Port Discovery, Quilcene, and Chimacum are small villages scattered about the county and are centers of agricultural activity.

KING COUNTY

King county is distinguished by having Seattle for its county seat. The county is an empire in itself, stretching from the shores of Puget sound to the peaks of the Cascade mountains, and containing more than 2,000 square miles of territory. It also includes Vashon, one of the large islands of the sound.

RESOURCES.

King county's sources of revenue are varied and extensive. Its lumber industry, growing out of the vast forests within its borders not only, but from the cutting of logs brought in from other sections of the state, is immense.

Its agricultural lands are not surpassed in fertility by any, and include not only the alluvial deposits in its river bottoms, but great areas of shot clay and other soils splendidly adapted to fruit culture.

Its mining industries include not only very great acreage of coal measures, which have been producing coal for commercial purposes for local and foreign trade for thirty years and are scarcely scratched as yet, but also fissure veins of the precious metals—gold, silver, lead, copper, antimony, arsenic, and also iron, asbestos, fire clays, kaolin, granite, sandstones, lime ledges, and others.

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Its fishing industries in its own waters and from the ocean give employment to a large number of men and its fish are shipped even as far east as Boston, Massachusetts.

Its power capacity, in addition to its wood and coal, includes great falls and rapids and many large streams which are already harnessed, but only in part, and driving vast quantities of machinery in this and adjoining counties.

In commercial possibilities King county is unrivaled. Its combination of lakes, rivers and salt water harbors have no superior on the globe, and the fact of its supremacy is demonstrated by the tabulated statistics of state officers, which show that King county possesses one-fifth of the population of the state and has more than one-quarter in value of taxable property of the state, and pays one-fourth of taxes collected within the state borders.

In scenery, which is no mean asset of the county, it is also unsurpassed. Vast ranges of mountains, sheets of fresh and salt water, rivers, hills and plains, forests, and grassy fields combine and interlace in a thousand directions to entrance and delight the artistic eye.

In game, including bear, deer, mountain goats, cougar, grouse, pheasants, quail, mountain trout, salmon and other fishes, make many a paradise for the sportsman.

TRANSPORTATION.

In addition to its salt waterways, with 75 miles of shore lands, and its navigable fresh water lakes, there are centering in the county coming in from all directions seven transcontinental lines of railroads, making King county and its metropolis a great distributing center for the commerce between the American continent and the continents of Asia and the islands of the Pacific. Besides these steam roads, electric trolley lines are making a network of intercommunication between all parts of King county not only, but reaching out into the adjoining counties.

CITIES AND TOWNS.

Seattle is the county seat and great metropolis of King county and the state, with a population crowding, if not exceeding, 275,000 people. It covers the hills and lowlands surrounding Elliot bay, an indentation of Puget sound, and a part of the land between the sound and Lake Washington, a freshwater lake of great beauty paralleling the sound for 23 miles and from one to three miles wide. It also includes two smaller lakes, whose sloping shores are covered with the homes of its citizens. From its hills the snow-capped mountains of the Cascade and Olympic ranges and Mount Rainier's towering peak are visions of surpassing beauty. A constant stream of coming and going water craft from all quarters of the globe frequent its harbor. Its business buildings of brick, stone, iron and concrete tower heavenward over four avenues, and many cross streets and miles of its low lands are covered with railroad tracks, warehouses and manufacturing plants.

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Its grammar schools, high schools, and State University are equipped with magnificent buildings and grounds. Its streets and homes are brilliantly lighted with electricity from its own power plants, while the purest water, sufficient for a million people, flows through its water mains, all owned and controlled by the city.

A multitude of factories are providing a small part of the merchandise and composes the groundwork of her commerce.

The shores of Elliot bay are lined with wharves accommodating the largest sea-going ships. Its last assessed valuation of property was \$203,168,680, and its tax to be raised \$975,210.

More than 150 miles of street-car tracks are within her borders and a nickel pays for a 15-mile ride.

Georgetown, in the southern part of Seattle, but not a part of it as yet, has a population of about 5,000, and is an important manufacturing center. Here are the car shops of Seattle Electric Company, gas works, foundries, breweries, machine shops, brick and tile works and many other industries.

Renton, Issaquah, Ravensdale, Black Diamond, and New Castle are coal mining towns.

Kent, Auburn, Kirkland, Vashon, North Bend, Tolt, Fall City, and Maple Valley are agricultural towns of importance.

KITSAP COUNTY

Kitsap county is nearly surrounded by the waters of Puget sound and Hood's canal, forming the larger part of the great peninsula which these waters would make an island were a six-mile ridge in Mason county opened up to them. It has extensive and numerous bays and inlets, with magnificent anchorage, and contains in its center the great Port Orchard navy yard, destined to become one of the largest seats in the United States for Uncle Sam's naval activities.

RESOURCES AND INDUSTRIES.

The chief resource of the county is in the lumber. Some of the largest mills of the state are located within its borders.

It is estimated that there are yet 200,000 acres of uncut timber in its borders, and its mills are turning out 600,000 feet of lumber daily, besides vast quantities of shingles.

The fishing industry now includes oyster culture, which is rapidly becoming very important. About the county are located many villages supported by the tillage of the soil from its reclaimed forest lands.

TRANSPORTATION.

Kitsap county has no railroads, but its waterways are so vast and intricate that all its corners are reached by steamers, and travel is cheap and freight conveniently handled in all parts of the county.



Plate No. 55.—An Okanogan County Valley, Palmer Lake.



Plate No. 56.—McGowan Seining Grounds, Sand Island, Pacific County.

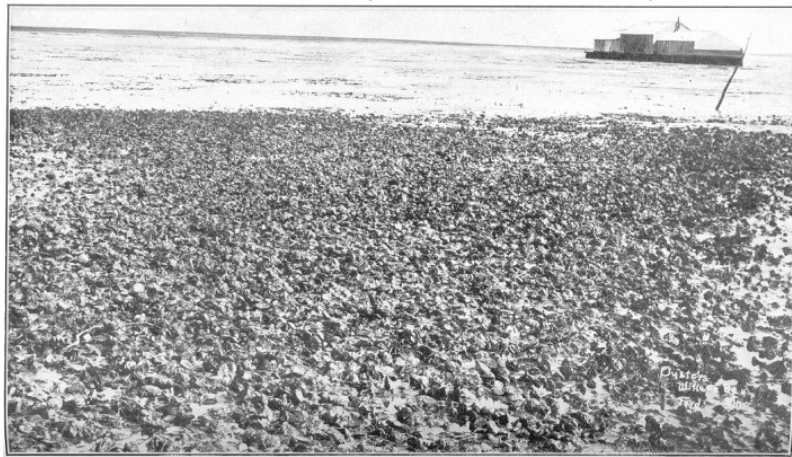


Plate No. 57.—Oyster Culture in Willapa Harbor, Pacific County.

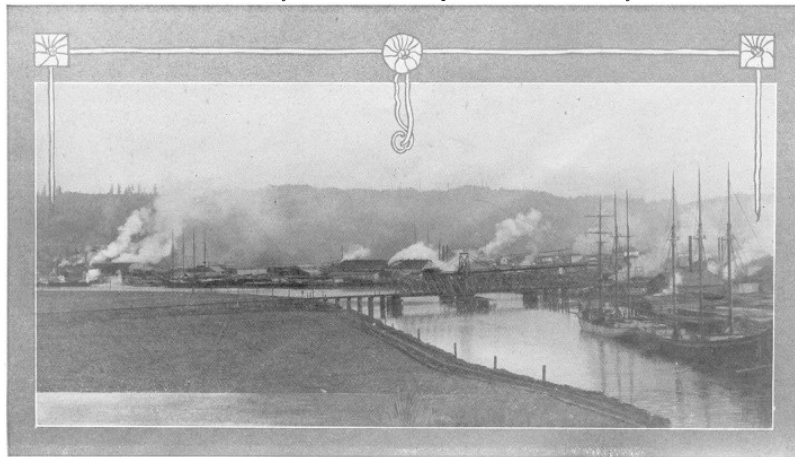


Plate No. 58.—View of the Waterfront at Raymond, Pacific County.



Plate No. 59.—A View of a Portion of Tacoma's Harbor, Showing Ships Waiting to Load Lumber and Wheat for Foreign Ports.

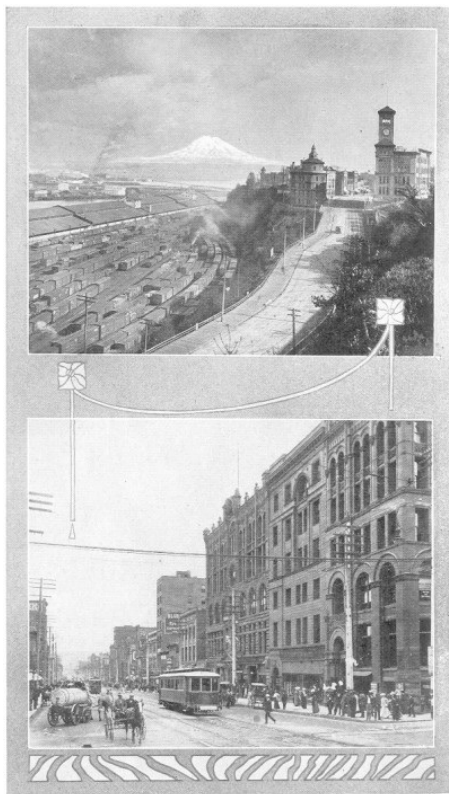


Plate No. 60.—Railroad Yards and a Corner of the Business Section, Tacoma.

PRINCIPAL TOWNS.

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Port Orchard, the county seat, is on the bay of the same name and opposite the navy yard. It is the chief distributing point for a larger part of the cultivated lands of the county, and exports not only agricultural products, but also shingles. The surrounding lands are well suited for dairying, fruit-growing and poultry-raising, which is also true of the entire county.

Bremerton, adjoining the navy yard, is the largest town in the county, having about 4,000 people and rapidly growing. It has a fire department, electric light and water systems, newspapers, banks, about 1,000 or more wage-earners and is a hustling town.

Charleston is another smaller town adjoining the navy yard on the west and rapidly growing.

Port Blakeley is an important milling and shipbuilding town of nearly 2,000 people, opposite Seattle. Its lumber goes to all parts of the world.

Port Gamble is a sawmill town of importance contributing to swell the large output of lumber shipped out of the county.

Chico, Tracyton, Keyport, Paulsbo, Seabeck, Crystal Springs, Colby, Bangor, Burley, Port Madison, and **Olalla** are all small villages, making progress as agricultural centers and as furnishing summer homes for business men.

KITTITAS COUNTY

Kittitas county is located about in the center of the state, and takes in the upper reaches and most of the watershed of the Yakima river. It has a population of about 20,000 in an area of 2,400 square miles. On its northwestern side it is bordered by two ranges of the Cascade mountains, while its southwestern side lies on the Columbia river.

Among the sources of the Yakima river are three large lakes, Keechelus, Kachess and Cle-Elum, most beautiful bodies of mountain water and the sources of the great irrigation systems now fathered by the national government and making the Yakima valley a veritable garden pot of orchards and vegetables, grasses and flowers.

RESOURCES.

The central portion of the county is a valley comprising 250,000 acres, about one-fourth of which is under irrigation, and has long been noted for its prolific crops of hay and many herds of dairy cows.

The foothills of the mountains have precious metals, coal and iron. The streams abound in trout and much game is in the mountains.

TRANSPORTATION.

The Northern Pacific and Chicago, Milwaukee & St. Paul railroads, coming into the county from the south and west, cross at Ellensburg and then follow the valley of the Yakima to the crest of the Cascades giving abundant facilities for making markets east and west to all parts of the country.

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PRINCIPAL TOWNS.

Ellensburg, the county seat, is situated on a level bench in the Yakima valley and on the railroads. It is a town of upwards of 5,500 people, and is substantially built, chiefly of brick. There are creameries, flourmills, sawmills, and warehouses, banks, breweries newspapers, electric lights, and gravity water system, churches, schools, among which is one of the state normal schools. It is also a division point on the Northern Pacific railway, and is the chief distributing point in the county for farm products and merchandise.

Roslyn is the chief coal-mining town, situated on the railroad well up in the foothills of the mountains. It has about 4,500 people. It has gravity water and electric lights, and is a substantial, thriving and growing town. From the coal mines in the vicinity the best coals of the state are mined in large quantities and shipped all over the state.

Cle-Elum is another coal mining town, on the Northern Pacific railway, with a population of about 2,500. Tributary

to Cle-Elum is a wide mining territory, for which it is the chief distributing point.

Thorpe is a smaller village likely to develop into an important trading point.

KLICKTAT COUNTY

Klickitat county is central among the southern tier of counties of the state, bordering 80 miles on the Columbia river, with an average width of 20 miles. It has a population of about 14,000 and an area of 1,800 square miles.

There is a great variety in its climate, the elevation varying from 100 to 3,500 feet above the sea level.

The soil is chiefly volcanic ash, disintegrated basalt and alluvium. It is deep and much of it sub-irrigated. The principal crops are wheat, barley, rye, oats, and corn.

The wheat lands yield from 15 to 40 bushels per acre.

Among the fruits raised are apples, peaches, pears, cherries, English walnuts, almonds, plums, prunes, grapes, apricots, and all the small fruits.

Wheat lands vary in price from \$10 to \$50 per acre. It is estimated that 7,000 acres will be planted to fruit and nut trees this current year, while last year 75,385 apple trees, 14,675 peach trees, and 17,345 grape vines were planted.

RESOURCES.

As already indicated, the strength of the county in its soil and agriculture is its great source of wealth. Stock-raising is a chief industry, the slopes of the mountains on its northern boundary furnishing abundant pasturage. The southeastern part is fast developing into a fruit-growing region, while agriculture and grain-growing is more general in the central and southern portion.

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TRANSPORTATION.

The Columbia river, with a railroad on each side of it and numerous ferries, makes ample provision for transportation, while the Goldendale branch reaches well up into the center of the county.

CITIES AND TOWNS.

Goldendale, the county seat and metropolis, is located in the center of the county, 120 miles east of Portland. It is the terminus of the Goldendale branch of the Spokane, Portland & Seattle railway, making connection with the main line at Lyle. It is located in the heart of a splendid agricultural section and at the edge of the great timber belt.

White Salmon, located in the splendid fruit section, is a thriving town. It is an important railroad point on the North Bank and is the outlet for the products of an extensive fruit, timber and dairying region.

Cliffs, the division point of the Spokane, Portland & Seattle railway, is the trading center of many square miles of territory. The best nut land in the county is located near here.

Bickleton, the trading point of an extensive wheat section, is in the eastern part of the county. An electric road has been surveyed, which will, when completed, give this town railway connection.

Lyle, Roosevelt, Columbus, Bingen, and Centerville are growing trading points.

LEWIS COUNTY

Lewis county is one of the largest counties in western Washington, having an area of 2,593 square miles of territory and about 40,000 people. It occupies a large part of the drainage basins of two large rivers, the Cowlitz and Chehalis—one emptying its waters into the Columbia river and the other into Grays harbor. It reaches from the peaks of the Cascades 100 miles toward the ocean, but is cut off 30 miles from the coast, and is about 30 miles wide. Mount Rainier is just north of its extreme eastern portion and about one-fourth of the county is within the Rainier forest reserve.

RESOURCES.

At present the chief industry of the county consists of manufacturing its forests into the various forms of lumber and its products, the lumber cut aggregating four hundred million feet and two hundred million shingles.

Next in importance probably are the precious metal and coal deposits of the county, which have, however, been but little developed. The coal measures include bituminous, lignite and anthracite, and are of great extent in the foothills of the eastern part of the county. Two systems of railroads have been projected into these fields, and the nearest, carrying lignite and bituminous coals, are being commercially developed.

Agriculture, including especially dairying and fruit culture, takes the place of the forests as they are removed and bids fair to reach in importance, in time, the lumber and coal resources. To this end, the soil fertility, the mild climate and cool mountain waters conspire.

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TRANSPORTATION.

Lewis county is in the path of all railroads coming in from the south or through the Columbia gap in the Cascades. Already the Northern Pacific railway and the Union Pacific railway cross the county, and the North Coast contemplates traversing the entire Cowlitz valley, while the Tacoma Eastern is already into the northwestern part of the county on its way toward the same goal. The county cannot be too well supplied, for its vast treasures when developed will furnish immense products for transportation.

CITIES AND TOWNS.

Chehalis and **Centralia** are the two twin cities of the county—less than five miles apart and of about equal importance. From Chehalis the Northern Pacific railway branches off, following the upper reaches of Chehalis river and ending on Willapa bay, while from Centralia the same road branches, following the lower Chehalis river, to Grays harbor.

Chehalis is the county seat, with a population of 5,000 and rapidly growing, and has electric lights, sanitary sewerage system, paved streets, fine business blocks, and a large and growing trade. Near the city is located the State Training School.

Centralia has a population of about 7,000 people, chiefly engaged in running sawmills, shingle mills, sash and door factories, and other woodworking plants. It has a large city hall, ten churches, fine schools, banks, business houses, water systems, fire department, and is a hustling, thriving town.

Winlock is a town of 1,200 people on the railroad in the southern part of the county, and a distributing point of much importance.

Pe Ell is a town of 1,000 people on the South Bend branch of the Northern Pacific railway, chiefly engaged in milling and agricultural pursuits.

McCormick, Littell, Kosmos, Little Falls, Adna, Dryad, Doty, and Kopiah, are all centers of industry in various parts of the county.

Lewis county as a whole offers wonderful opportunities for newcomers in all pursuits—commercial, agricultural, and mining.



Plate No. 61.—Tacoma High School and Stadium. Rose Arbor in Point Defiance Park, Tacoma.



Plate No. 62.—A Red Raspberry Field in the Puyallup Valley, Pierce County.

LINCOLN COUNTY

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Lincoln county, adjoining Spokane county on the west, is one of eastern Washington's great granaries. Its northern boundary is defined by the Columbia and Spokane rivers. The bulk of its lands are rolling prairies of great fertility. It has about 2,300 square miles of territory and about 25,000 people.

TOPOGRAPHY.

The bulk of the county consists of the rolling prairie land characteristic of the great wheat belt of the state. There are some mineral lands in the northern part of the county and here and there will be found considerable stretches of timber. In its northern portion the county is well watered by the Columbia and Spokane rivers, while in the southwestern section and elsewhere numerous small creeks and lakes occur.

RESOURCES.

The great resource of Lincoln county is its wheat fields, which in 1907 produced to exceed 8,000,000 bushels. Other cereals and hay are important crops. Along its northern part, particularly on the bottom lands of the rivers, much fruit is grown, including peaches and all the small fruits. Diversified farming is growing in favor among the farmers. Compared with other counties of the state, Lincoln county ranks as follows in the number of its stock: Horses, second place; hogs, second place; cattle, sixth place. The county also stands fourth in the number of its school houses and spends annually \$100,000 for school support.

In wealth per capita, Lincoln county leads the state, showing for assessment purposes an average holding of real estate of \$1,163 and \$226 in personalty.

TRANSPORTATION.

The county is traversed from west to east its entire length by the Great Northern and the central Washington branch of the Northern Pacific railroads, some distance from its side lines, so that very little of the county is more

than 12 miles from a railroad shipping point. There are 170 miles of railroad tracks in the county.

CITIES AND TOWNS.

Davenport, the county seat and largest town in the county, is situated on the central Washington branch of the Northern Pacific railway near the middle eastern portion of the county, and has a population of about 2,800 people. Its business blocks are chiefly built of brick. It owns its own water system, is lighted with electricity, has fine school buildings and churches. Its court house cost about \$80,000. It is surrounded by splendid farms and annually ships out about 1,250,000 bushels of wheat.

Wilbur, a town of 1,500 people, on the Northern Pacific railway, is a very important shipping and distributing center. It has large flour mills, warehouses, five churches, and schools, electric lights, and water system, bank, newspaper, parks, and important commercial institutions.

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Almira, in the western part of the county, on the Northern Pacific railway, is another prosperous and growing grain center with about 600 people.

Harrington, on the Great Northern railway, is a town of some 1,200 people. It has a beautiful location, commands the trade of a large farming county, ships grain and livestock, and is a prosperous and growing town.

Creston, Egypt, and Bluestem are smaller growing commercial centers.

MASON COUNTY

Mason county lies on the upper reaches of Puget sound, having the Olympic mountains at its north, where about one-fourth of the county is in the Olympic forest reserve. Its total area is about 900 square miles, and it has a population of about 6,000. Hood's canal penetrates well into the center of the county in its great bend, giving it a very long salt-water shore line. From the Olympic mountains numerous streams flow into the Puget sound, while others empty their waters into Gray's harbor.

The county is a great forest of splendid timber, which has been only to a limited degree cut out. The soil of the foothills and valleys is composed chiefly of shot clays and alluvial deposits, making good farming, stock-raising and fruit-growing lands.

RESOURCES.

Logging and its allied industries constitute the main industries of the county. Much of the logs are shipped out of the county to feed sawmills in other parts of the Sound.

Raising and marketing oysters is an important source of wealth to the county.

There is already considerable acreage for farming and stock-raising, stock finding pasturage the year round. This industry will grow as the land is cleared.

The county affords splendid hunting and fishing in season.

TRANSPORTATION.

The county is so cut into by the inlets and bays of the sound that it has splendid transportation facilities by steamer to all the sound ports. The Northern Pacific railway reaches its southern boundary. No other railroads traverse the county but its logging railroads, which can give only a limited service.

PRINCIPAL TOWNS.

Shelton is the county seat, situated on an arm of the sound at the terminus of the logging railroad, and has about 1,200 inhabitants. Steamers from its wharves reach all the parts of the sound directly or by connection with others.

The logging industry, manufacturing lumber, cultivating oysters, fishing and farming are the chief industries of its people. It has four churches, good schools, a newspaper, good stocks of goods, volunteer fire department, electric lights, gravity water system.

The logging industry, which centers here, employs 2,000 men and pays out \$120,000 a month.

Lake Cushman is a summer resort in the mountains famous for its big trout catches.

Allyn, on an arm of the sound, is central to much oyster lands, logging camps and fruit orchards.

Arcadia, also on the sound, is central to considerable stock-raising and lumbering.

Detroit is a prosperous village, proud of the grapes grown on some of its logged-off lands.

Matlock is a town on the logging railroad and central to large logging operations.

OKANOGAN COUNTY.

Okanogan, the largest county in the state, lies on the northern boundary just east of the Cascade peaks. It has an area of 4,500 square miles and a population estimated at 13,000.

About one-fourth of the county, a district of great latent resources, is still within the Colville Indian reservation, but is soon to be thrown open to settlement.

RESOURCES.

This county is endowed with great natural resources and a delightful climate, and is destined to become thickly populated.

The mountains and their foothills have large and numerous veins of metals and are covered also with extensive forests. The rolling hills of the south and center are rich in agricultural possibilities, suitable for stock, and great crops of cereals and fruits. The Okanogan river and its branches drain the greater portion of the county, rising in British Columbia and flowing south through the center of the county and joining the Columbia river on the south boundary. The Methow river drains a large portion of the western part and makes a paradise for the frontiersman along its sloping sides.

TRANSPORTATION.

Until now the rivers and wagon roads are the only paths of commerce. But into this blossoming empire the railroads are looking with longing eyes. The Great Northern, however, has already tapped the northern boundary and projected a line down the Okanogan and Columbia rivers to Wenatchee. Other railroads will follow, as the prize is too great not to be divided.

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PRINCIPAL TOWNS.

Conconully, the county seat, is situated among the foothills and mines west of the Okanogan river. In addition to the mining industry, the raising of sheep and cattle is followed by the citizens. The town has a population of about 500 people.

Oroville is the chief town on the railroad, near the northern border, and is the terminus of the road. It has about 500 people and is growing. It is an important ore-shipping point, surrounded also by good fruit-raising and agricultural lands, yet unirrigated.

Brewster, at the junction of the Columbia and Okanogan rivers, has a population of about 200, and is an important grain and fruit-shipping point.

Okanogan is on the river of the same name, about midway between Brewster and Conconully, and to this point the steamers ply in the higher waters of the river.

Twisp is a growing village in the Methow valley, devoted chiefly to fruit-growing and mining. It is an important distributing center.

Pateros has steamer connection with Wenatchee, and is an importing, growing center.

Beck, Bonaparte, Anglin and **Bodie** are other new and growing commercial centers.

Chesaw, in the northern part, and **Nespelem**, in the southeastern part, are important locations.

PACIFIC COUNTY.

Pacific county is the extreme southern county, which borders on the ocean at the mouth of the Columbia river. Although a small county with only 900 square miles, it has about 100 miles of salt-water frontage. Willapa harbor, at the northwest, is capable of being made accessible to all ocean ships, while Shoalwater bay, a body of water 20 miles long and separated from the ocean by a long slim peninsula, furnishes probably the best breeding ground in the state for oyster culture. The county at large is an immense forest, in the center of which is a range of hills dividing the watershed so that some of the streams flow into the Columbia river at the south, some west into Willapa harbor, and others, through the Chehalis river, reach Grays harbor.



Plate No. 63.—Modern Sanitary Dairy Barn, on Farm of Hon. W. H. Paulhamus, Sumner, Pierce County.



Plate No. 64.—Views in Rainier National Park, Reached by Railroad and Driveway from Tacoma.

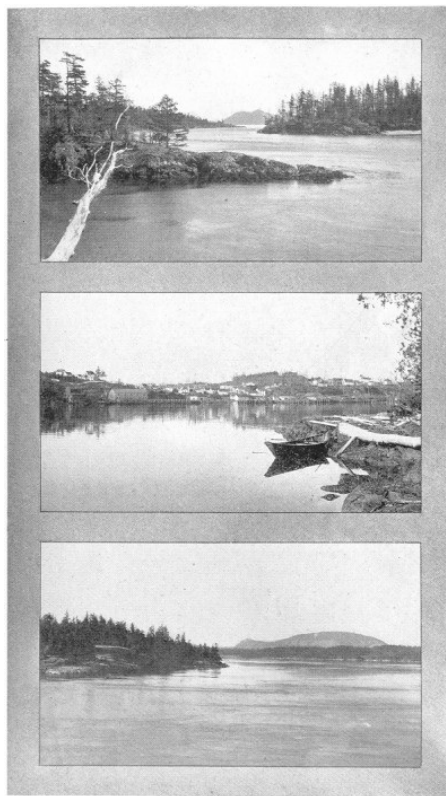


Plate No. 65.—San Juan County Views.

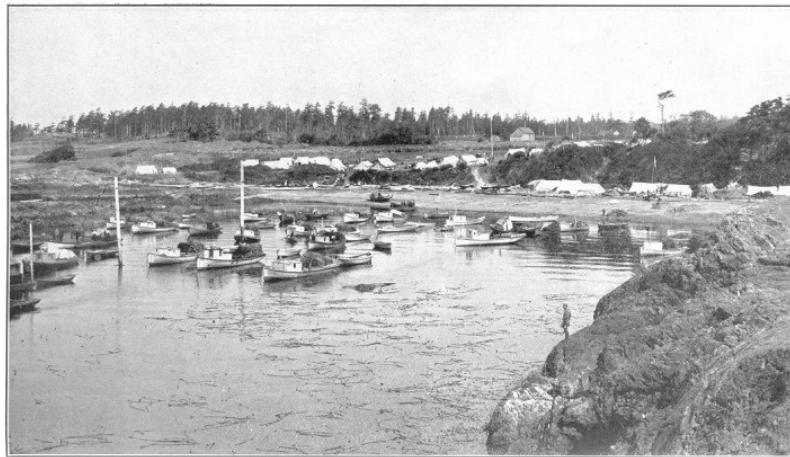


Plate No. 66.—Purse Seiners' Camp at Eagle Gorge, San Juan County.

RESOURCES.

As already indicated, its timber and its fisheries are the great sources of wealth for the county, although stock-raising, dairying, fruit-growing and general farming are constantly growing in importance.

The county probably has eleven billion feet of standing timber, and daily cuts with its 64 sawmills about 775,000 feet of lumber and one million shingles.

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Both native and cultivated oysters are largely marketed, as are also clams, crabs, shrimp and fish. A splendid market for all farm products is afforded by the mills and lumber camps and summer campers on the beach.

TRANSPORTATION.

The Northern Pacific railway reaches Willapa harbor, cutting the county centrally east and west. On the long ocean beach from the mouth of the Columbia river northward is a railroad about 20 miles long, made profitable by the extensive patronage of the summer campers. Added to these are the water crafts which frequent the harbor and the Columbia river, and altogether make access to all parts of the county easy.

CITIES AND TOWNS.

South Bend, the county seat, situated near the mouth of the Willapa river, is a rapidly growing town of 3,000 people and destined to become an important ocean port. The harbor is capacious, well protected, has fine anchorage, and is handicapped only by a few feet of mud at the bottom, which Uncle Sam will soon remove. At low tide there is now from 20 to 30 feet of water in the channel of the river and at South Bend it is 1,000 feet wide. South Bend is the terminus of the Northern Pacific railway. It has electric lights, water works, good schools, fine churches, bank, sawmills, planing-mills, sash and door factories, fish canneries, newspapers, etc., and is about to build a \$50,000 courthouse.

Raymond, a new manufacturing town on the harbor and railroad, a few miles from South Bend, has 2,500 people and is rapidly growing in importance. Raymond is not yet five years old; has a monthly payroll of \$100,000; sawmills and factories representing an invested capital of \$4,900,000, employing 1,200 men; an electric light plant; a city telephone system, owned by local capital; a salt-water fire protection system; is about to build two bridges, costing \$30,000 each, and is adding new manufacturing plants at the rate of one a month. The city gives free factory sites, and has both rail and ocean transportation from factory locations to the markets of the world.

Ilwaco is a fishing post of importance near the southwest shore of the county, with 900 population.

Chinook, Frankfort and **Knabton** are other fishing points on the Columbia river of importance. **Nahcotta** is an ocean summer resort.

Pierce county, though not the largest, is one of the most important counties in the state. Its area of 1,800 square miles occupies much of the upper reaches of Puget sound on both sides and extends southeasterly, taking in the Rainier National Park of 2,225,000 acres, and Mount Rainier (Tacoma) 14,526 feet above sea level and less than 60 miles from salt water, covered with eternal snow, an endless scene of majestic grandeur, giving the county a greater variety of elevations and more beautiful and startling scenery than any other county in the United States. Its northeastern boundary is the White river, its southwestern boundary the Nisqually river. It has about 125 miles of salt-water shore lands, with innumerable bays and inlets and several important islands. Originally one vast forest, much of it now is covered with fruitful fields of grain, grass and orchards.

Its climate is mild and salubrious, its soils of great variety and fertility, and its mountains and foothills full of coal and precious metals.

RESOURCES.

The resources of Pierce county are varied and of great value. Its central part is one great coal field, covered with forests, producing annually about 1,000,000 tons of coal. Gold, silver and copper are among its precious metals, but not extensively mined as yet.

Its rivers possess almost immeasurable water power. One plant on the Puyallup river at Electron has an ultimate capacity of 40,000 horse-power, 20,000 horse-power of which is now in use. The city of Tacoma is engaged in the construction of a plant on the Nisqually for municipal use, the capacity of which will be 20,000 horse-power. The 12,000 horse-power plant at Snoqualmie Falls also furnishes current for city lighting, street railway and manufacturing purposes in Tacoma.

All the cereals are successfully raised; dairying is one of the most important industries; fruit-growing, particularly in small fruits, such as strawberries, raspberries, blackberries, cherries, etc., is very profitable and is engaging a great deal of attention. Fish are caught in quantities and shipped to eastern markets, but Pierce county's greatest natural wealth is in its vast forests. An idea of the value can be had when it is said that \$6,000,000 worth of lumber was cut in 1908 in Tacoma alone. In addition to these great natural resources, Pierce county's commercial industries are so great as to place it in the front rank of counties of the Northwest. The great sawmills, woodworking plants and factories of various kinds in the city of Tacoma alone employ 11,800 people, and the value of their output last year amounted to over \$43,000,000.00.

TRANSPORTATION.

Pierce county is fast becoming a network of transcontinental railroads centering in Tacoma, which, coupled with the steamboat traffic on the Sound, gives the county splendid traffic facilities. Pierce county for years was a non-competitive railroad point, the Northern Pacific being the only road to enter its vast fields of wealth. Within the last two years, however, the Chicago, Milwaukee & St. Paul, the Union Pacific system, and the Great Northern, realizing the wealth of the county and the importance of Tacoma as a manufacturing center, the value of her perfect harbor for shipping, the vastness of her great stretch of level tidelands for factory sites and terminal yards, and the low cost at which freight can be transferred from the rails to the sails or *vice versa*, have entered the field and are now spending \$11,000,000 on construction and terminal work in the city of Tacoma. The addition of these new roads means a wonderful impetus to the trade of Tacoma. The Tacoma Eastern railroad, a beautiful scenic route, beginning at Tacoma, runs in a southeasterly direction through a wonderfully fertile country and vast forests of splendid timber, to Rainier National Park and Mount Rainier (Mt. Tacoma). Several trolley lines are in operation, reaching all the near-by towns and connecting Tacoma and Seattle.

In addition to these lines, many steamboats and crafts of all kinds, plying the waters of Puget Sound and the Pacific ocean, find abundant wharfage and anchorage in the harbor of Tacoma. The products of the world in large quantities pass through Tacoma in process of distribution. A constant stream of small crafts, running about the waters of the county, accommodate the local traffic.

CITIES AND TOWNS.

Tacoma, with a population of about 125,000, is the county seat of Pierce county, and situated on Commencement bay. Its harbor, one of the finest in the world, and its railroad terminals, unexcelled on the Pacific Coast, as already indicated, are the center of a vast commerce by rail and water. At its door is an immense amount of water power, already developed, driving her street cars and the machinery in many of her factories. Coal and coke are in abundance within a few miles of the city, the coal being used extensively for steam and conveyed from the trains to the boats by immense electric bunkers. The coke is largely utilized in the largest lead and copper reduction plant on the coast. The great Guggenheim smelter at Tacoma reduces and turns out annually lead, copper, gold and silver worth about \$10,000,000. Along her wharves are immense elevators, grain warehouses and flouring mills. Tacoma yearly ships out more grain than any other city on Puget sound. In and around the city are large saw and shingle mills, which last year cut 527,604,000 feet of lumber and 434,000,000 Shingles. Her factories and shops have \$24,000,000 invested and employ 11,800 wage-earners, and her large flour mills ship their products to all parts of the world. Her packing-house products amounted to \$5,000,000 in 1908. The largest car shops west of the Mississippi are located here. Her downtown streets are lined by large business blocks; she has 185 miles of street and suburban railway, and over 75 miles of paved streets.

There are four daily newspapers, 8 banks, 1,120 acres in parks, and many beautiful and expensive public buildings. The city hall cost \$200,000; the court house, \$500,000; her high school building, the most beautiful on the coast, cost a half million dollars, and the United States government is completing a \$500,000 federal building.

Puyallup is one of Pierce county's prosperous towns, having about 7,000 population, in the wealthy Puyallup valley. This is the center or a great fruit-growing district, in which the farmers have combined and market their crops through an association, sending their berries in patent refrigerator cars into far-away markets. It is also quite a large manufacturing center, with a payroll of \$45,000 per month.

Buckley, with a population of 1,500, is the center of large sawmilling, farming and mining industries.

Orting is a town with 800 people, chiefly engaged in gardening and farming. The State Soldiers' Home is located near, and adds considerable trade to the town.

Sumner has a population of 1,000, is located in the Puyallup valley, and its people form a part of the farmers' association, engaged in fruit-growing, dairying and gardening.

Steilacoom is one of the most beautiful little summer resort towns on Puget sound and is connected with Tacoma by two electric lines.

Sylvan, Gig Harbor, Rosedale, Elgin, Long Branch, Blanchard, and Bee are very prosperous villages of Pierce county, and are located on the shores of Puget sound.

Spanaway, Eatonville, Alderton, Elbe, Meridian, Kapowsin, and McMillan are villages in the interior, on the railroads.

Wilkeson, South Prairie, Carbonado, Fairfax, Pittsburg, and Melmont are coal-mining towns of importance.

San Juan county is a group of islands lying between the waters of the Straits of Fuca and the Gulf of Georgia, off the southeast shore of Vancouver island. It has about 200 square miles of territory and about 4,500 people.

There are three large islands and several smaller ones. The islands are covered with soil and timber not different from the main land adjoining. Heavy timber in the forests, fine clay loams in the bottom lands, shot clay on the hillsides, big ledges of lime rock and other minerals and great shoals of fish in the waters are the foundations for prosperity for the citizens of the county.

RESOURCES.

The soils of the islands yield generously to good tillage, and wheat, oats, barley, potatoes and hay yield large crops. Dairying is profitable. Poultry-raising and fruit-growing, are especially attractive. Sheep and cattle find splendid pasture. Great quantities of salmon and other fish are taken in the waters, and game-deer and wild fowl—are abundant.

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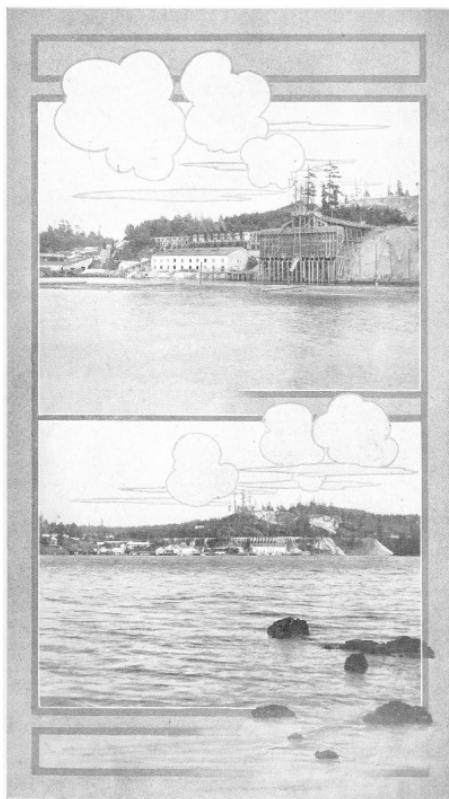


Plate No. 67.—Two Views of the Lime Works at Roche Harbor, San Juan County.

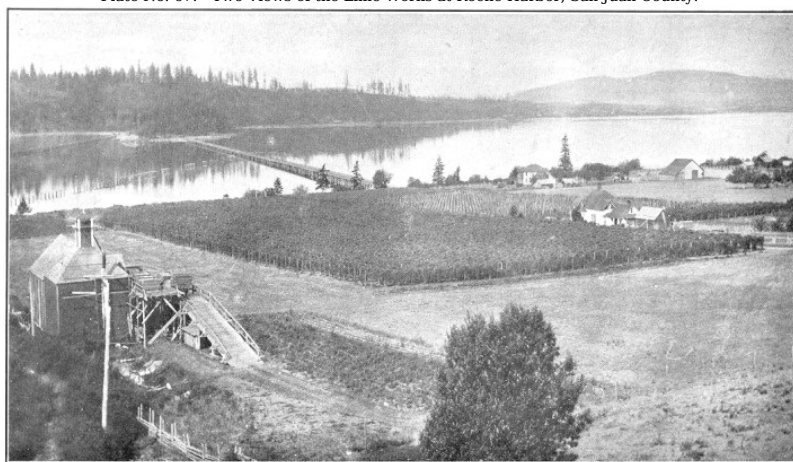


Plate No. 68.—A Typical Farm Scene in Skagit County.

TRANSPORTATION.

There is no transportation save by water, but the islands are in the way of traffic from so many different directions that all parts are well served by steamboats.

ISLANDS AND TOWNS.

SAN JUAN ISLAND is the largest of the group, and its chief industries are farming, raising stock, salmon-fishing, and manufacturing lime.

Friday Harbor, on this island, is the county seat and largest town, with about 500 people. A telephone system is in operation throughout the island.

Roche Harbor is the home of great lime kilns.

ORCAS ISLAND is the leading fruit-growing district of the county.

East Sound, near the center of the island, at the foot of Mount Constitution, is a picturesque and charming fruit-growing section and summer resort.

Orcas is an important center of the fruit and sheep raising industries.

LOPEZ ISLAND is a beautiful stretch of fertile agricultural land, much of it under tillage, and is the home of a prosperous community of farmers and stock-growers.

Lopez is the chief commercial center, with a cannery and creamery.

SKAGIT COUNTY.

Skagit county is the next county to the northwest corner of the state, stretching from Rosario straits to the peaks of the Cascades—about 100 miles east and west and 24 miles north and south. Its area is 1,800 square miles, with a population of about 35,000.

It is a county of great diversities in climate, topography and resources. The Skagit river and its branches drain nearly the entire county from the mountains to the saltwater. Its deltas are great flat fields of wonderful fertility. Its valleys also, where cleared of forests, are very rich alluvial lands. Its upper lands carry a great burden of forests and are full of hidden treasures.

RESOURCES.

The resources of the county are its forests and minerals, its agricultural products, and fishes. Its great cereal crop is of oats; hops, fruits, hay and barley follow in the order named in importance, while the products of the dairy are rapidly multiplying. Its minerals include the precious metals, iron, lead, coal, marble, limestone, granite, sandstone, etc.

TRANSPORTATION.

Aside from its water transportation, the Great Northern and the Northern Pacific railways cross its westerly end and send a branch line through the valley of the Skagit river well up towards the mountains and to the salt water at Anacortes. And other roads are building, while there are 168 miles of modern graveled wagon roads. The facilities for getting about are excellent.

PRINCIPAL CITIES AND TOWNS.

Mt. Vernon is the county seat, with about 4,000 people. It is on the Great Northern railway, on the navigable Skagit river, and is a city of much commercial importance to the agricultural district around it. The soil in the vicinity is renowned for its great fertility and astonishing crops of oats, hay and grass. Creameries and a milk-condensing plant are supported profitably to all concerned.

Anacortes is the chief town of the county, on the salt water. It has about 6,000 people, and is a center of lumbering and fishing. Factories for drying, salting, and canning salmon, halibut, and cod are increasing industries. There is also a fertilizing plant and a plant producing charcoal and the by-products of combustion, wood alcohol, turpentine, etc.

Sedro-Woolley, on both the Northern Pacific and Great Northern railways, has a population of 4,000, engaged in lumber industries, fruit, and vegetables, canning, dairying and gardening. It has a monthly payroll of \$125,000.

Burlington, on the Great Northern railway, has 1,800 people, and factories for making various wood products, concrete blocks, lumber, shingles and condensed milk.

La Conner is a great oat and hay shipping point. It is at the mouth of the Skagit river and on tide water, and has 800 people.

Hamilton, at the head of navigation on the Skagit river, is a mining and lumbering town of 300 people.

Bay View, Sammish, Minkler, Prairie, Fir, and **Birdsview** are other shipping points.

Baker, on a branch of the Great Northern railway, has 400 people, and is a center of cement factories.

SKAMANIA COUNTY.

Skamania county, in the south central part of the state, has its southern boundary on the Columbia river, with Lewis county to the north. It is chiefly within the forest reserve, and includes Mount St. Helens on the west and Mount Adams on its eastern border. Altogether it has an area of 1,636 square miles, chiefly mountainous, and about 3,000 people.

The north fork of the Lewis river drains the most of the mountainous region, while a lot of small streams drain the southern part, emptying into the Columbia river.

The climate is a mean between that of eastern and western Washington, and is very mild and salubrious. The soil of the valleys in the region of the Columbia river is very fertile.

RESOURCES.

The chief resource of the county is in its timber and lumber, yet its mineral and agricultural wealth is becoming better known and appreciated yearly. The fruit raised in its valleys is of excellent flavor, early in season, and the soil is generous in its yield. Splendid pasturage in the foothills encourages stock-raising, and fishing in the Columbia river is profitably followed by some of the citizens.

TRANSPORTATION.

Boats on the Columbia river and a railroad on each side of it are the means of transportation, and ample for the residents of the county in its southern portion. The coming of the North Bank railroad has given a decided stimulus to the growth of the county.

DEVELOPMENT.

Skamania county has developed slowly and the bulk of its natural wealth is still practically untouched. Its minerals, well known to be valuable, are attracting the attention of prospectors, while the forests, fisheries and farming lands will furnish a competence to hundreds of additional families. The scenery, combined with the fishing and hunting afforded, are additional attractions that will prove alluring to many newcomers.

PRINCIPAL TOWNS.

Stevenson, a small town on the Columbia river and railroad, is the county seat and has a population of about 450.

Tributary to Stevenson is considerable improved land, and the people are engaged in stock-raising, fruit-growing and farming.

Butler is a town of about 300 people on the railroad and river.

Carson, Cape Horn, Mt. Pleasant and **Bear Prairie** are smaller villages, destined to become centers of commercial distribution.

Snohomish county extends 36 miles in width from the Sound to the peaks of the Cascade mountains, adjoining King county on the north. It has an area of some 2,500 square miles of territory, a population of about 63,000 people, and a great storehouse of wealth in its natural resources. It is one of the largest and richest counties in the state, with a mild and healthful climate, magnificent scenery, great diversity of landscape, innumerable water falls and plenty of game.

RESOURCES.

The forests of Snohomish are very extensive and but little depleted. Fir, cedar, hemlock and spruce are its chief trees. Nearly one-half of the area of the county is heavily mineralized with veins of gold, silver, copper, lead, nickel, iron, and other ores. There are also vast ledges of marble, granite and other building stones.

In diversified agricultural possibilities, few counties can excel Snohomish. Its general soils in its valleys are alluvial, and produce astonishing crops; about the deltas of its rivers, the riches of the salt water and the mountains have combined to make a soil that will endure for ages and annually astonish the husbandman with its generosity. Upon its uplands, its clay and decaying herbage have combined for ages to create a soil wonderfully adapted to produce grass and fruits, and the industrious are luxuriating in nature's prodigality.

Rainfall is abundant, but not excessive, and crops of the cereals and fruits are never failures.

TRANSPORTATION.

This county is splendidly provided with transportation facilities; many steamboats ply its salt waters and part way up the three great rivers that flow into the Sound. Two transcontinental railroads cut the western part of the county in two. The trunk line of the Great Northern follows the valley of one river from the southeast to the coast, while two branch lines run up the other two great valleys, past the center of the state, toward the mountains, while a dozen spurs and short logging and coal roads act as feeders to the main lines, thus giving all the towns of the county access to all the Sound markets, and those of the east and the ports of the Pacific ocean.

PRINCIPAL CITIES AND TOWNS.

Everett, situated upon a fine harbor on the shores of Puget sound near the mouth of the Snohomish river, is the county seat and metropolis of the county. It has a population of 35,000, and is fast developing into a commercial and manufacturing center of importance.

The largest steamers afloat can find wharfage at her docks and safe anchorage in her waters. It has upwards of 3,000 men employed in its factories and mills, with a monthly payroll aggregating \$230,000.

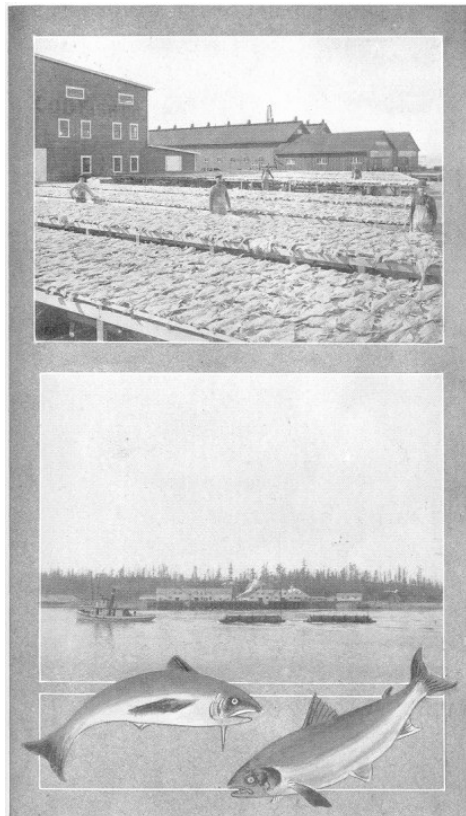


Plate No. 69.—Codfish and Salmon Packing Plants at Anacortes, Skagit County.

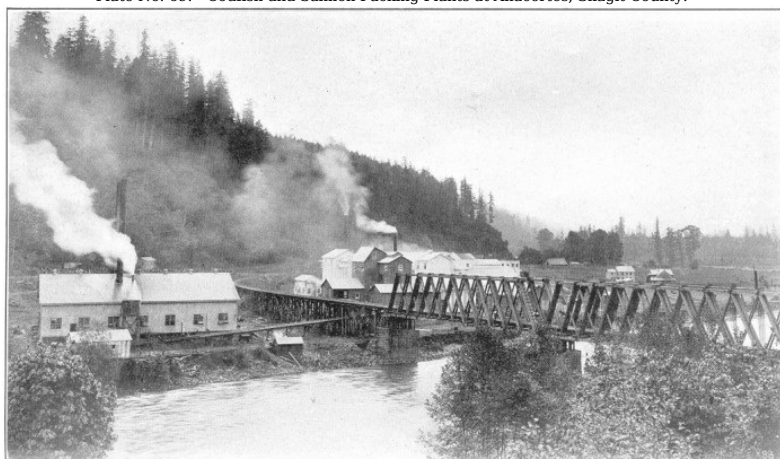




Plate No. 71.— Snohomish County Views.

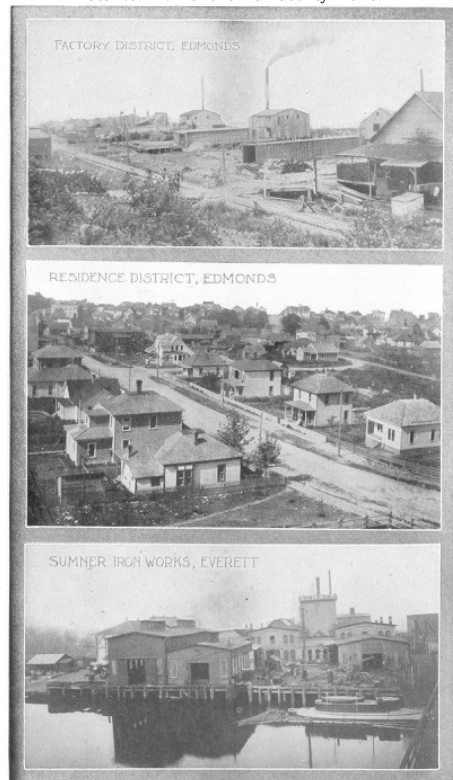


Plate No. 72.— Snohomish County Industrial Scenes.

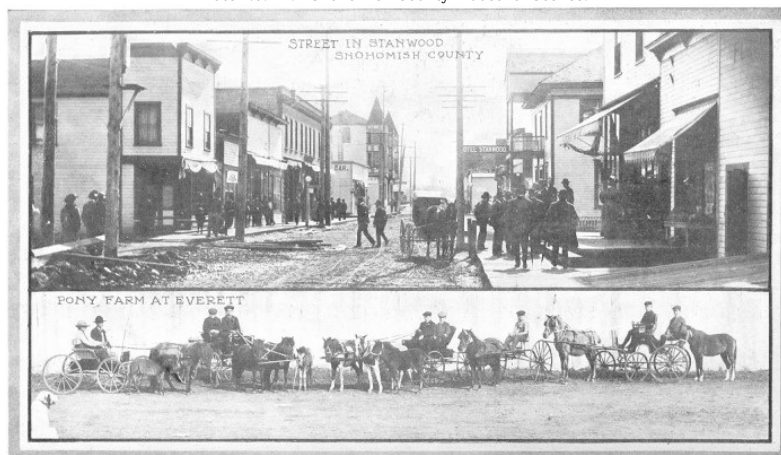


Plate No. 73.— Street Scene in Stanwood, Snohomish County. A Pony Farm at Everett, Snohomish County.

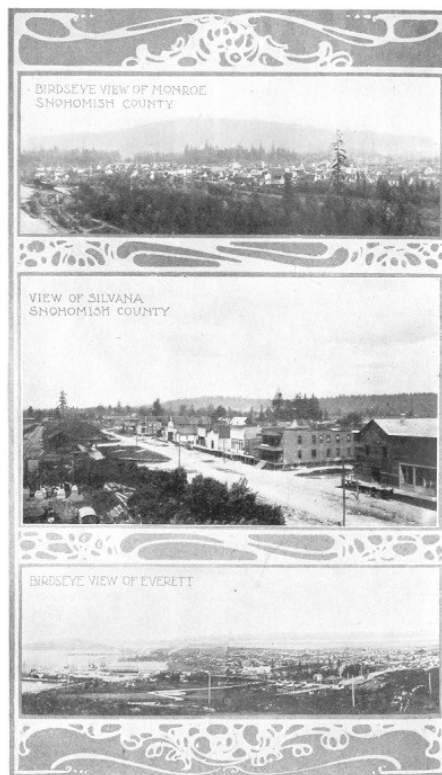


Plate No. 74.—City and Town Views, Snohomish County.

They are engaged in the manufacture of lumber, shingles, sash and doors; in railroad shops, pulp and paper mills, and smelters; in running tug boats, driving piles, making iron castings, and tanning hides; packing meats and fish; making turpentine, charcoal, flour, butter, and many other commodities. Its banks have \$4,000,000 on deposit. Its paper mills produce 26 tons of paper daily. Its smelter is a constant producer of the precious metals and their by-products.

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The city is substantially built, having all the conveniences of a modern city, with wide streets and wide sidewalks; has both gas and electricity for lights, and a good water system. Some of its streets are paved with preserved wooden blocks and some with asphalt.

Everett is a sub-port of entry of the Puget sound country. The United States has spent half a million dollars improving the mouth of the Snohomish river for a fresh-water harbor.

Snohomish is a city of 4,000 people, on the Snohomish river, which is navigable, and is connected with Everett by a street car line. It is also on the Northern Pacific and Great Northern railways, and is the distributing center for a large agricultural district. It has a number of shingle and sawmills, and is headquarters for a good deal of the mining industry of the county.

Stanwood is a town of about 800 people, on the Sound and railway, in the northwestern part of the county. It is a center of farming interests and lumber industries.

Arlington is a mining and lumbering town on the Northern Pacific railway, well up toward the mountains. It has a population of 2,000 and is growing.

Monroe is a town of 2,400 people, on the line of the Great Northern railway, in the center of a large farming and milling industry.

Edmonds, a town of 2,000 people, is on the Sound and Great Northern railway, near the King county line; chiefly engaged in sawing lumber and making shingles.

Sultan, Granite Falls, Gold Bar, Darrington, and Monte Cristo are all centers of mining and other industries.

Marysville, Mukilteo, Silvana, Getchell, and Pilchuck are centers of lumbering and farming.

SPOKANE COUNTY

Spokane county lies in the extreme eastern section of the state. The area of the county is 1,680 square miles.

TRANSPORTATION.

The transportation facilities are the best of the Inland Pacific Northwest. Three transcontinental railroads—the Northern Pacific, Chicago, Milwaukee & St. Paul, and Great Northern—traverse the County from east to west; a fourth transcontinental line, the Oregon Railway & Navigation company, enters from the southwest, and a fifth transcontinental road, the Spokane International (C. P. R.), enters the county from the northeast and terminates at Spokane. The Spokane Falls & Northern extends north into British Columbia and to Republic and Oroville, Wash. Electric trolley lines connect Spokane with the outlying towns in every direction. The total railway mileage in the county is approximately 429 miles.

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TOPOGRAPHY AND INDUSTRIES.

The northern portion of the county is somewhat mountainous, and is covered with a fine growth of pine and tamarack timber; much of this section is suitable for agriculture, while all is adapted to grazing. The central part of the county is rolling and is traversed by the Spokane river; the central section to the west of the city of Spokane is fine agricultural land, while to the east of Spokane is the Spokane valley, which is rapidly being brought into a high state of cultivation by means of irrigation. There are about 40,000 acres in this valley capable of irrigation; 3,000 acres are now irrigated and under cultivation. The southern portion of the county is rolling, and comprises some of the finest agricultural land in the state. Large areas of this section are utilized for wheat-raising, while here are grown the finest sugar beets in the world.

Lumbering is a considerable industry, while stock-raising and dairying are also extensively engaged in. Over 1,000,000 bushels of wheat are grown annually. The flour mills of the county have a combined capacity of 3,600 barrels daily.

In fruit-growing Spokane is one of the leading counties of the state. The value of the fruit produced in the county amounts to nearly \$3,000,000 annually. The following table shows the distribution of the five important fruits.

<i>Trees planted</i>	1908—	<i>Total.</i>
[*]Apples,	253,630	713,567
Pears,	15,470	39,232
Peaches,	59,323	94,769
Cherries,	56,405	106,909
Plums and Prunes,	11,815	29,128
Miscellaneous	2,910	10,000
	399,553	Total planted 1,003,615

[Footnote *: Is 25 percent. of the total number of apple trees planted in the state in 1908.]

SCHOOLS.

There are 165 school districts in the county and eighteen towns where graded schools are maintained. The total valuation of assessed property with improvements (1908) is \$77,120,360; personal property, \$10,527,030.

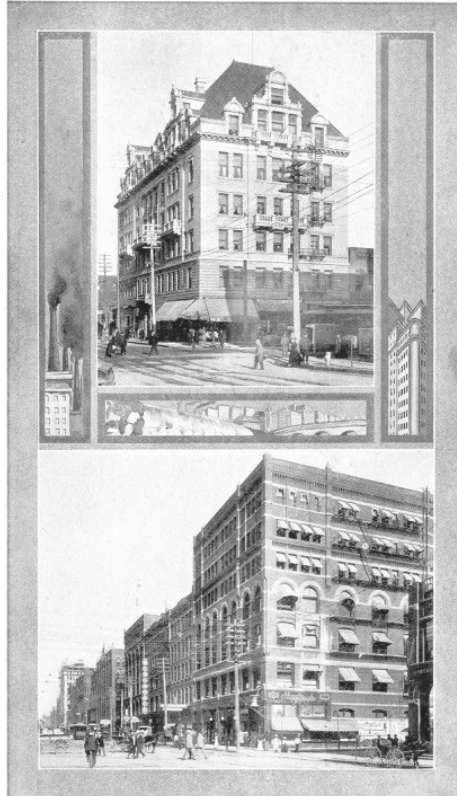


Plate No. 75.— (1) Spokane Club Building, Spokane. (2)Riverside Avenue, Looking East from Post Street, Spokane.

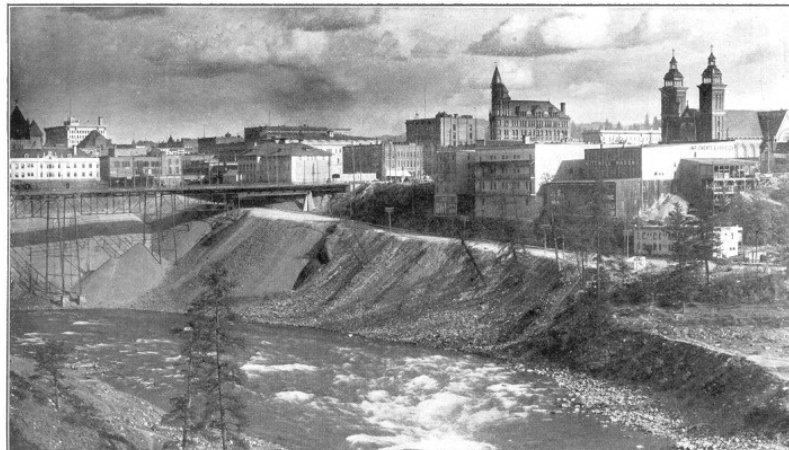


Plate No. 76.—Spokane River and Bridge at Spokane, Showing Fill for New Concrete Structure to Cost \$500,000.

PRINCIPAL CITIES AND TOWNS.

Spokane, situated on the Spokane river, is the county seat of Spokane county, and is the metropolis of eastern Washington, having a population estimated at 120,000. Spokane is the center of a great wheat-raising section and is the principal mining and commercial center between the Cascades and the Rocky mountains. A conservative estimate of the total value of manufactured products for 1908 is \$17,000,000. There are over 12,000 wage-earners, receiving over \$10,000,000 annually. The principal industrial establishments are lumber mills, flour mills, machine shops, agricultural machinery, brick plants, iron works, foundries, pottery, cereal food, furniture, etc.

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The industrial prosperity of the city is due largely to the mines in the vicinity, the great agricultural resources of the surrounding country, and to the extensive water power which offers special inducements to manufacturers. The Spokane river here has a total fall of 132 feet, which furnishes a minimum of 33,000 horse-power, of which 15,000 horse-power is developed.

There are four national banks, with a combined capital of \$3,425,000. The city owns its own water works, from which an annual revenue of more than \$325,000 is derived.

The educational facilities are excellent. There are twenty-three public school buildings, constructed of brick and stone, and costing \$1,450,000. There are three daily newspapers, having a combined circulation of 45,000. Here is

located the U. S. circuit court; the headquarters of the U. S. district court, eastern division; U. S. military post (Fort Wright); the government headquarters of the postal inspector service, known as the Spokane division, which includes the states of Washington, Montana, Idaho, Oregon, and the territory of Alaska, and a U. S. land office. Postoffice receipts for 1908 amounted to \$360,504.

Cheney, 10 miles southwest of Spokane, is a town of 1,500 people. Here is located one of the state normal schools, having about 400 students.

Medical Lake is an important town, having the Eastern Washington Hospital for the Insane near-by, It is a noted health resort.

Rockford is an important agricultural town of 1,200 people.

Hillyard is an important place of 1,500 people, having the car shops of the Great Northern railway as its chief business.

STEVENS COUNTY

Stevens county, in the extreme northeastern corner of the state, has an area of 4,500 square miles and a population of about 24,000. It is a county of great and diverse resources, is splendidly watered with large rivers, the Columbia bounding it on the west, and the Spokane on part of its southern line. Three ranges of low mountains extend across the county nearly north and south. Between these the Colville river and the Pend d'Oreille flow generally northerly through grand and beautiful valleys.

RESOURCES AND PRODUCTIONS.

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Agriculture in all its branches, lumbering and kindred pursuits, and the mining of precious metals and building stones make up its chief sources of wealth.

AGRICULTURE.

The farms in the Colville valley are noted for their heavy hay crops, producing abundantly all the cereals, including corn, the clovers, timothy and alfalfa.

Dairying and stock-raising are important industries. To these the climate and soils are well adapted. Some lands have been irrigated with great benefit, but the bulk of the farming is successful without irrigation.

Fruit-raising is receiving deep interest of late, and the county bids fair to compete for honors with the very best localities in the state for the hardier fruits.

Lumbering and saw-milling engage the attention of a large number of the people, the product of the mills finding a ready market in the farming region, large cities and mining camps.

Mining of the precious metals is a growing and an attractive industry. The ores include gold, silver, lead, copper, tungsten and iron, while quarries of limestone, marble, onyx, fire-clay, etc., abound.

TRANSPORTATION.

In addition to the navigable waters of the Columbia and Pend d'Oreille rivers, which traverse the outskirts of the county, the Great Northern railway through the Colville valley from the southern to the northern boundary, reaches most of the agricultural and mining centers and renders good service. The western part of the county, comparatively undeveloped, deserves much more attention.

PRINCIPAL CITIES AND TOWNS.

Colville is both the county seat and principal town in the county, having a population of 1,600 people, and is a growing town, a distributing center on the railroad, surrounded by prosperous farming communities.

Northport is the center of much mining activity and has a large smelter for the reduction of ores of the precious metals. It has a population of 1,200.

Chewelah is a center of agriculture, mining and lumbering industries in the center of the county, having about 1,000 people.

Newport, in the southeastern part of the county, is an important agricultural distributing center. A dozen other smaller towns offer great opportunities to the homeseeker.



Plate No. 77.—Raising Potatoes in Young Orchard, Spokane County.

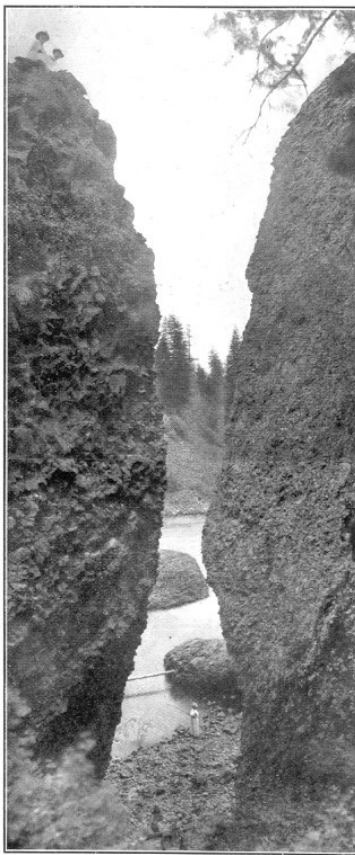


Plate No. 78.—Basalt Columns, Spokane River at Spokane.

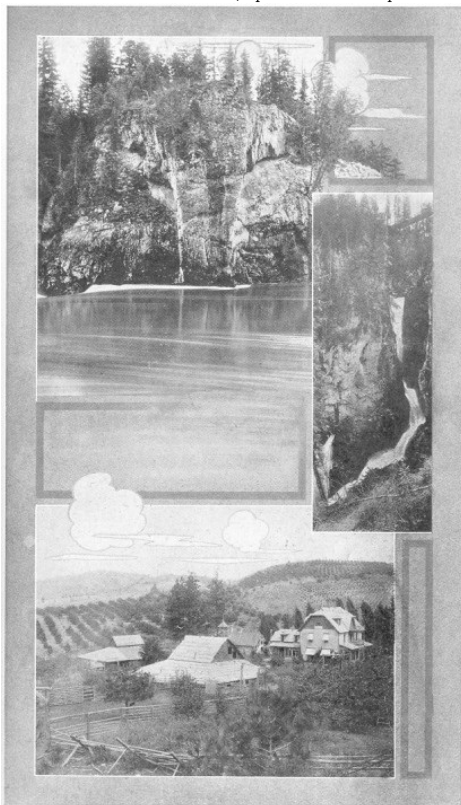


Plate No. 79.—STEVENS COUNTY VIEWS. "Where the Elephant Drinks," a Remarkable Crag on the Bank of the Pend d'Oreille River. A Typical Fruit Ranch. Flume Creek Falls.

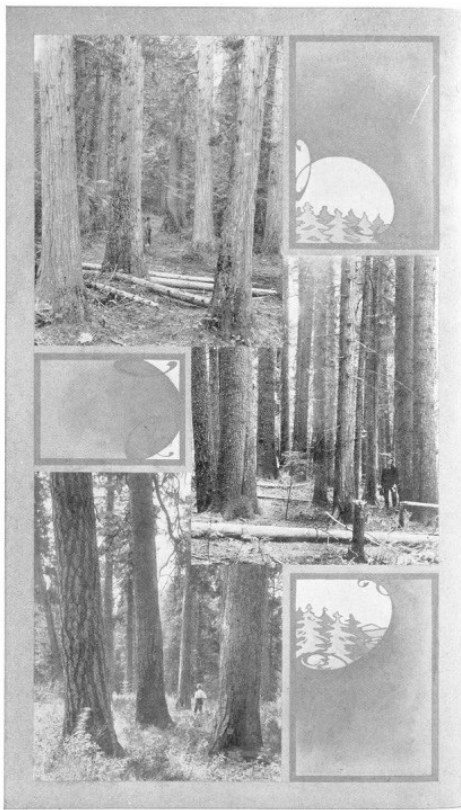


Plate No. 80.—Stevens County Timber. Cedar Forest. White Pine Forest. Yellow Pine Forest.

THURSTON COUNTY

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Thurston county is known as having the state capital, Olympia, within its borders, and as including the extreme southern reaches of Puget sound. It is a county of wooded hills and valleys with a few open prairies well watered by mountain streams, chief of which is the Nisqually, which forms its dividing line from Pierce county, and the Des Chutes river, which makes a splendid waterfall of some 85 feet, a few miles south of Olympia. It has an area of about 700 square miles, 100 miles of salt-water shore, a population of about 20,000, and a delightful climate and magnificent scenery of lofty mountains; great expanse of inland salt water, and green-clad islands and fields in every direction.

RESOURCES.

The county is one of the oldest settled portions of the state, and has a great variety of natural resources, among which are its timber areas, its agricultural fields, its coal mines, its fisheries, including clam and oyster beds, gray sandstone quarries, and a great variety of clays.

INDUSTRIES.

The sawmills of the county are still a very important industry and shiploads of lumber are sent out from its wharves. All the cereals and grasses yield abundant crops; root crops are extensive; fruit of great variety and fine flavor is very prominent. Dairying is flourishing, the county having more dairies than any other in the state. Coal mining is in its infancy, but has progressed far enough to demonstrate the existence of vast areas of lignite coal, having some six veins and having a combined thickness of 61 feet of coal. About 50,000 sacks of oysters are annually marketed.

TRANSPORTATION.

The Northern Pacific railway connects Olympia with all the important Sound ports and the east, and all the transcontinental roads coming to the Sound from the south will pass through the county. Together with its salt-water deep harbors, these give the county splendid competition and variety of commercial facilities.

PRINCIPAL CITIES.

Olympia, the chief town of the county, at once the county seat, state capital and county metropolis, is situated on one of the deep-water inlets of Puget sound. Its population is about 12,000. While it has a beautiful sandstone structure, now used for capitol purposes, the state is about to erect a new capitol building, to cost \$1,000,000. The foundation is already built. Olympia has one of the U. S. land offices and the U. S. surveyor-general's office. It is lighted and furnished with power for street-car and other purposes from the power of Tumwater falls. The city is a beautiful one of fine homes, shaded streets and parks, surrounded by a very prosperous agricultural community, producing great quantities of fruit, dairy and poultry products.

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Several other smaller towns on the railroads are local centers of commercial activity.

WAHAKIACUM COUNTY

Wahkiakum is a small county, having only 275 square miles of territory, located on the Columbia river in the southwestern corner of the state, near the ocean. Its population is about 4,000. The county is heavily timbered and well watered. In many parts of the county the soil is exceptionally fertile. The climate is mild, but somewhat humid. In the northern part are some low mountains, from which the drainage is south through the county to the Columbia river.

RESOURCES.

The resources of the county consist in its timber, its fertile soil, and the fish in the river and ocean.

INDUSTRIES.

Logging, saw-milling, and industries growing out of these; agriculture, dairying, and fishing are the chief

occupation of its people. There are several logging concerns in the county and large saw-mills. Fish canneries dot its river shores; several creameries and dairies are manufacturing butter, while its farms produce hay, potatoes, fruits, cattle, hogs, poultry, eggs, and other products, chiefly for the Portland market. Many of its citizens are fishermen and some make considerable sums trapping fur animals in the winters.

TRANSPORTATION.

The Columbia river is the great highway of the county; no railroads are within its borders or near. Owing to the small area of the county, this condition is no great drawback, as all the people have ready access to the river wharves.

PRINCIPAL TOWNS.

Cathlamet, on the Columbia, is the county seat, with about 500 people, and is the chief distributing center of the county.

Rosburg, Deep River, Brookfield, Altoona, and Skamokawa are centers of industry. This county offers exceptional opportunities for the frontiersman.

WALLA WALLA COUNTY

Walla Walla is the county of many waters. It is the most western of the southeastern counties of the state, and is bounded north and west by the Snake and Columbia rivers. It has 1,296 square miles and a population of about 30,000. The elevation varies from 350 feet at the Columbia river to 2,500 feet along its eastern border. It is a succession of plains and rolling hills, covered with bunch-grass, with some trees along the streams. Its soil varies from quite sandy volcanic ash in the low lands near the Columbia to a heavier clay loam in the eastern parts. In common with much of eastern Washington, these lands increase in fertility with successive cultivations. The climate is mild, healthful and vigorous.

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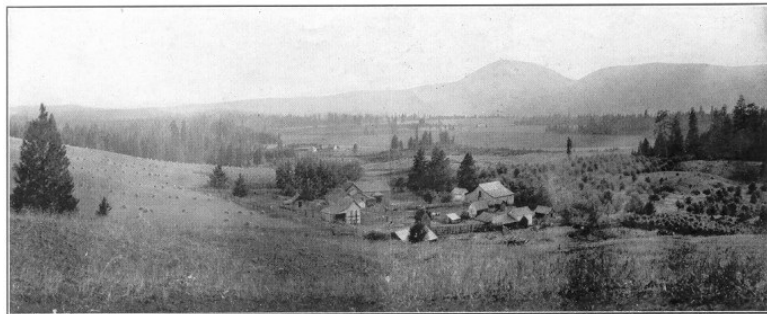


Plate No. 81.—Farm Scene Near Colville, Stevens County.



Plate No. 82.—View of Calispell Valley and Pend d'Oreille River, Stevens County.

RESOURCES.

Walla Walla county is essentially agricultural. Its chief resource is its soil fertility. This is such that few farmers can be found who have not bank accounts.

PRODUCTS.

The annual production of wheat in Walla Walla county is about 5,000,000 bushels. Barley is also a profitable crop. Oats and some corn are also raised. Large crops of alfalfa hay are annually marketed, chiefly from irrigated lands. Fruit of all kinds is abundant. There are 2,500 acres devoted to orchards. Market gardening is an important and growing industry.

TRANSPORTATION.

There are 310 miles of railroads in this county, both the Northern Pacific and Oregon Railroad & Navigation Company railroads competing for the traffic. In addition to the railroads, steamboats are plying the rivers around the edge of the county, giving additional facilities for transportation.

PRINCIPAL CITIES AND TOWNS.

Walla Walla, the county seat, has a population of about 22,000 and is the commercial center for the southeastern part of the state. Its streets are paved. The city owns its own system of water, at a cost of \$600,000. It is lighted with electricity and gas, has large banks and business houses, U. S. land office, U. S. courts, U. S. cavalry post, an Odd Fellows' home, and a Home for Widows and Orphans. There are manufacturing industries employing 400 men, turning out \$2,000,000 of productions annually. An electric system of street cars traverses the streets and is projected into several other near-by towns.

Waitsburg is an important agricultural town of about 1,600 people, in the western part of the county, having both railroad systems, and ships great quantities of grain. It has large flouring mills, warehouses, fine schools and churches, and is a prosperous, thriving town.

WHATCOM COUNTY

Whatcom county lies on the boundary of British Columbia, stretching from the Straits of Georgia to the peaks of the Cascade mountains—24 miles wide and 100 miles long, The eastern half or more of the county is included in the national forest reserve, with Mount Baker, 10,827 feet high, in the center of the county. It is one of the important counties on tide water, and has an area of 2,226 square miles and a population of about 70,000.

The climate is not different from the general Puget sound climate being mild and healthful. There are no severe storms, no sultry heat and no severe cold.

RESOURCES.

It is estimated that Whatcom county has three billion feet of standing timber. This is its greatest source of wealth. The western half of the county, outside of the lumbering, etc., is blessed with a wealth of soil responding to the farmer's labor generously.

The eastern half of the county is essentially a mountainous, forest-covered mining region, and has in store many veins of nearly all the metals.

Game of great variety of animals and fowls and fish are abundant.

INDUSTRIES.

The people of Whatcom county are engaged in lumbering and running saw-mills, one of the largest of the state being in this county; manufacturing of various kinds from the raw products in the county, including shingle mills and shingle machinery factory, salmon canneries, planing mills, barrel factories, Portland cement factory, and many others. Of no small importance is farming, fruit-growing and dairying. Prospecting and mining engage the attention and labor of a large number of citizens.

TRANSPORTATION.

Aside from having a long salt-water coast, open to traffic from the ocean, with splendid harbors, the county is traversed in all its agricultural half by a network of railroads, by the Northern Pacific, Great Northern, B. B. and B. C. railroads. These furnish exceptional means of traffic to all industries excepting the mining. The county has also an admirable system of wagon roads, some planked, some graveled and some graded and drained, covering about 700 miles.

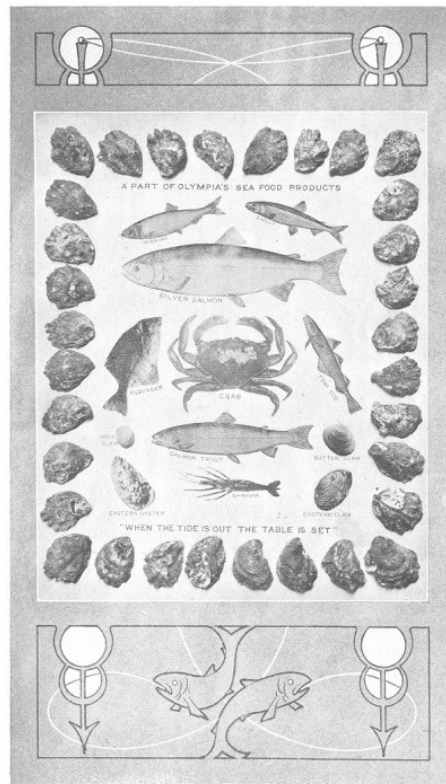


Plate No. 83.—Products of Thurston County Waters.

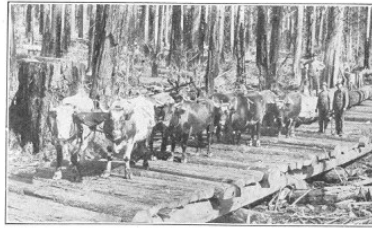
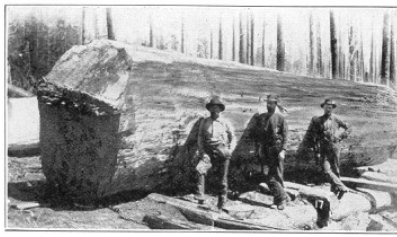


Plate No. 84.—Thurston County Stick. 14,000 Feet. Sandstone Quarry, Tenino, Thurston County. Logging with Oxen. Early Days in Thurston County.

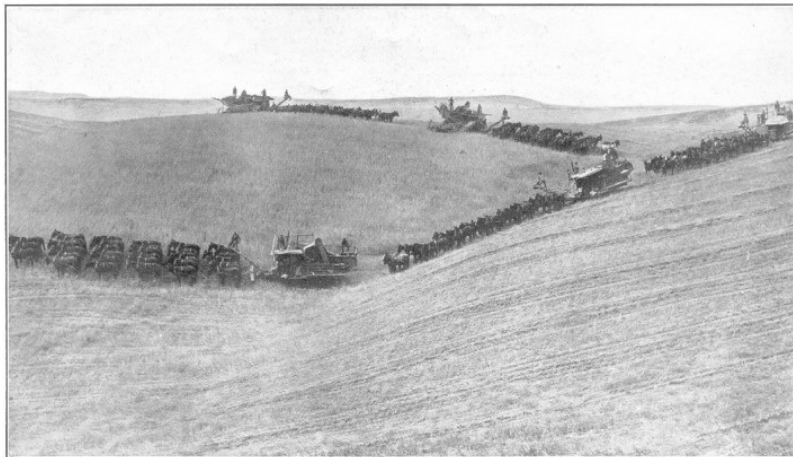


Plate No. 85.—Five Combined Harvesters at Work on a Walla Walla County Wheat Farm.

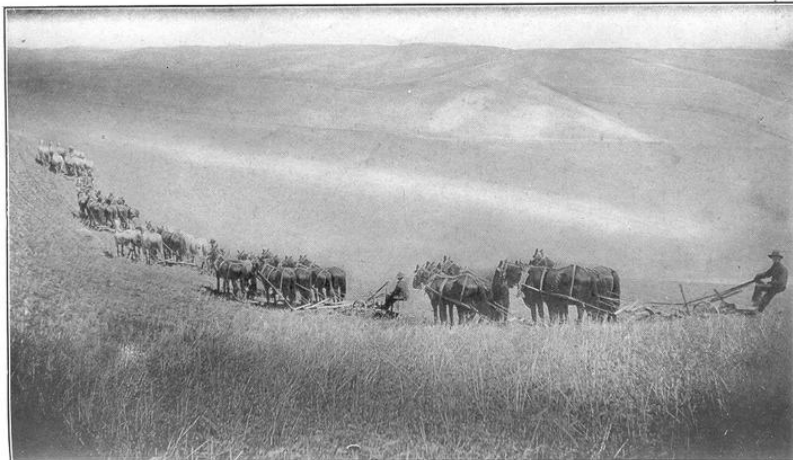


Plate No. 86.—Ploughing the Ground for Wheat-Growing, Walla Walla County.

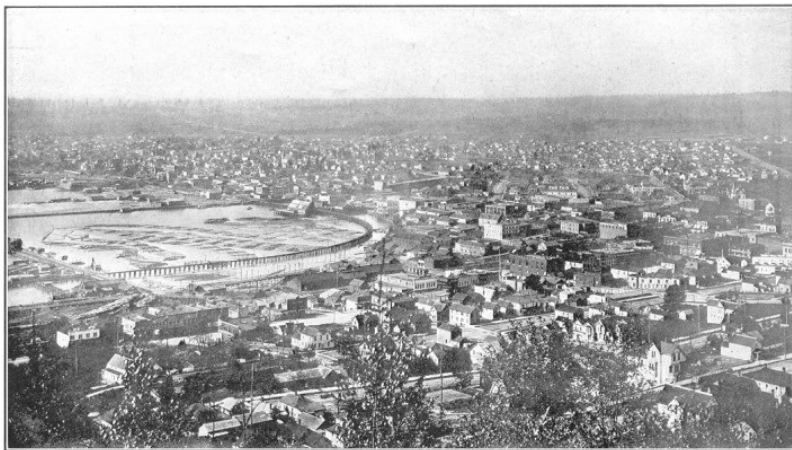


Plate No. 87.—Bird's-Eye View of a Portion of Bellingham, Whatcom County.

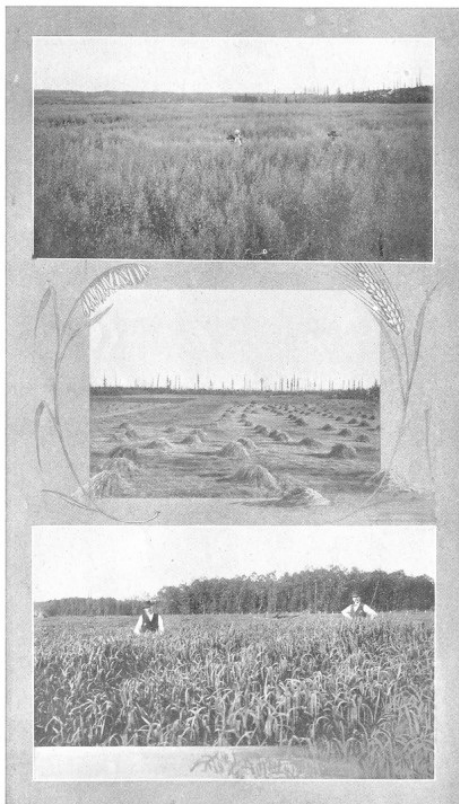


Plate No. 88.—Typical Farm Scenes in Whatcom County.

PRINCIPAL CITIES AND TOWNS.

Bellingham, on a salt-water bay of the same name, is the county seat, and commercial metropolis not only for this county but much other territory. It has a population of about 40,000 people. Into it all the railroads center, while the harbor is one of the best in Washington. It is largely a manufacturing town, having plants for the production of sash, doors, columns, tin cans, boilers, engines, flour and feed, canned fish, condensed milk, and many others. It is a substantial, live business community of wide-awake people, and growing rapidly. It has a gravity water system, electric lights, and gas plant.

Blaine is a city of about 3,000 inhabitants, situated close to the Canadian line and on the Great Northern railway. Timber and lumber manufactures are the chief sources of its prosperity. Fishing and the canning of salmon are also important industries. The railroad company has recently expended considerable sums in improving its facilities. Blaine is a growing community.

Sumas, on the Canadian border, is a lumbering town of 1,100 people.

Lynden is an agricultural center of 1,200 citizens.

Ferndale is a lumber center of 1,000 people. Besides, there are a dozen smaller business centers in the county, growing and prosperous.

WHITMAN COUNTY

Whitman county is one of the chief agricultural counties of the state, lying immediately south of Spokane county and on the Idaho state line, having the Snake river for its southern boundary. The county is a plateau of rolling prairie lands, a large portion of which is farmed, watered by a number of streams, which are utilized for irrigation purposes in some of the bottom lands—although the rainfall is sufficient to mature crops, and no irrigation is had on the great bulk of the farms. The area is about 2,000 square miles. The population is about 40,000. The soil is a strong mixture of volcanic ash and clay of great fertility and permanence. Twenty years of wheat-growing still leaves the soil able to produce from 25 to 50 bushels per acre.

RESOURCES.

All the resources of the county originate in this splendid soil. For growing all the cereals and fruits and vegetables it has no superior. The county is well settled, and probably no county can excel Whitman county in the per capita wealth of its farmers. The products of the county are varied, and include wheat, oats, barley and hay, all giving splendid yields—wheat from 30 to 50 bushels, oats 60 to 100 bushels, barley from 50 to 80 bushels, and hay from 4 to 6 tons per acre. Potatoes, sugar beets and other vegetables produce fine crops.

The hardier fruits, such as apples, pears, plums and cherries, are successfully raised in all parts of the county, while on the bottom lands, along the Snake river, peaches, melons, etc., are produced in abundance. Seventy-five carloads of fruit go out annually from one orchard.

Wheat gives up five and one-half million bushels to the farmers each year. Oats one and three-fourths million and barley about one-half million bushels. Whitman county has more banks than any county in eastern Washington besides Spokane.

TRANSPORTATION.

Whitman county is as well, or better, provided with railroads than any agricultural county in the state. The Northern Pacific, O. R. & N., Chicago, Milwaukee & St. Paul and the S. & I. railroads are all interlaced about its grain-fields. These all connect with Spokane, and give access to all eastern and western markets.

PRINCIPAL TOWNS.

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Colfax, the county seat, situated near the center of the county, on the railroads and Palouse river, is the largest town in the county, with about 3,600 population. The town owns its own water system, has electric lights, fine court-house, banks, mills, warehouses, etc.

Pullman is a town of 3,000 people, near which is located the Washington State College, a large educational institution supported by the state, having about 1,000 students. It is an important grain-shipping point. It has a public water system, electric lights, and is a thriving and growing commercial center.

Palouse is a railroad center of 2,500 people, a large shipping point for grain, live stock, fruits and pottery.

Oakesdale is a town of 1,500 people, having three railroads, and is an important shipping point.

Tekoa has a population of about 1,400, is a railroad center, and is a large shipper of fruits and grain.

Garfield has a population of 1,000, and ships much grain and other produce.

Rosalia has 1,000 population, and is an important grain center.

This county has a dozen other shipping points where from 300 to 700 people are supported by the business originating on the tributary farms.

YAKIMA COUNTY

Yakima county is one of the large and important counties in the state, having the Yakima Indian reservation included within its boundaries. Its area is 3,222 square miles and it has a population of about 38,000. It is watered by the Yakima river and its tributaries, and through its valleys the railroads from the east find their easiest grade toward the Cascade passes. It is a county of level valleys and plateaus, having a soil made up chiefly of volcanic ash and disintegrated basaltic rocks, of great depth, which yields fabulously in cereal and grass crops, fruits and vegetables with the magic touch of irrigation. Artificial watering is 30 years old in this valley, and yet only a very small area was thus treated until the matter was taken up by the national government. But now vast areas are being provided with water, and the consequent growth and development of the county is wonderful.

A series of lakes in the mountains are being utilized as reservoirs, and from these lakes the waters are being distributed in many directions in the large irrigating canals. When the projects now under way are completed, more than 200,000 acres will be under ditches.

RESOURCES.

Yakima's wealth consists in the combination of its soil and water and climate. The county, lying east of the Cascade mountains, in large part at a low elevation, receives somewhat severe heat in the summer, which gives the opportunity successfully to ripen the less hardy fruits—peaches, apricots, grapes, etc. The county has half a million bearing trees and two and one-half million young trees growing in its orchards.

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INDUSTRIES.

Naturally the industries of the county consist in exploiting its natural resources, and so we find Yakima citizens busy in raising fruits, hay, grain, and garden vegetables, to supply the big cities of the Sound. Its last year's contribution will probably exceed ten million dollars in value.

Of the items which compose this large sum, fruit is probably chief in importance. Alfalfa and grain-hay is an important item, as is also the crop of melons and potatoes. The combined fields of alfalfa and orchards make ideal bee pasturage, and Yakima honey is a constant factor of barter in the Sound cities. The upland farms produce quantities of all grains—wheat, oats, and barley—and some field corn is successfully raised in the warmer parts. Sheep, cattle and horses are also exported. Hops are a large crop.

PRINCIPAL CITIES AND TOWNS.

North Yakima is at once the county seat and chief metropolis of the entire Yakima valley, having a population of about 12,000. It is situated on the Northern Pacific railway and Yakima river, and is the distributing center for both merchandise and farm products for a large surrounding territory.

The State Fair, supported by the state, holds annual exhibits here. It has extensive fruit canneries, flour mills, lumber mills, other woodworking factories, large warehouses, paved streets, big business blocks, fine churches, schools, banks, newspapers, etc.

Sunnyside, a town built up among the irrigated farms, has a population of 1,500. Here are a cannery, pulp mill, creameries, etc.

Toppenish and **Mabton** are commercial centers of importance of about 700 inhabitants each, and growing.

STATISTICAL APPENDIX.

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STATISTICS OF THE INCORPORATED CITIES AND TOWNS OF WASHINGTON.

NAME.	County.	Mayor.	Clerk.	Sec'y Commercial Organization.	Pop. U. S. Cens. 1900	Est. Pop. 1909	Transportation Lines.
Aberdeen	Chehalis	E. B. Benn	P. F. Clarke	E. Beinfuhr	3,747	15,000	N. P. Ry. and steamship lines.
Almira	Lincoln	J. C. Johnson	Peter Wallerich			500	Northern Pacific railway.
Anacortes	Skagit	W. V. Wells	M. C. Baker	Gus Hensler	1,476	6,000	G. N. Ry. and two lines of

Arlington	Snohomish	Peter Larson	Homer L. Huddle	Lot Davis		2,400	steamers.
Asotin	Asotin	J. B. Jones	J. P. Fulton	E. H. Dammarell	470	1,500	Northern Pacific railway.
Auburn	King	L. C. Smith	Geo. C. Meade	Geo. C. Meade	489	1,500	River steamers.
Bellingham	Whatcom	J. P. De Mattos	F. B. Graves	L. Baldrey	11,062	41,000	N. P. and Mil. Rys.; P. S. Elec. Ry.
Blaine	Whatcom	T. J. Quirt	J. W. G. Merritt	J. J. Pinckney	1,592	3,500	G. N., N. P., B. B. & B. C. railways; steamers to all Sound ports.
Bremerton	Kitsap	L. E. Mallette	Paul Mehner	R. S. Hayward		4,000	Great Northern railway.
Buckley	Pierce	D. S. Morris	W. B. Osbourn	W. B. Osbourn	1,014	1,500	Steamers to Seattle and Tacoma.
Burlington	Skagit	P. M. Moody	I. A. Marchant	I. A. Marchant		1,800	Northern Pacific railway.
Camas	Clarke	John Cowan	F. B. Barnes			1,200	Great Northern railway.
Cashmere	Chelan	C. A. Huston	A. J. Amos	C. M. Banker		1,000	Portland & Seattle Ry.; river st'rs.
Castle Rock	Cowlitz	T. W. Robin	G. F. McClane	G. F. McClane	750	1,300	Great Northern railway.
Cathlamet	Wahkiakum	J. T. Nassa	T. M. Nassa			500	Northern Pacific railway.
Centralia	Lewis	J. P. Guerrier	W. H. Hodge	F. W. Thomas	1,600	7,000	Steamboats.
Charleston	Kitsap	N. A. Palmer	M. M. Bausman	A. F. Shepherd		1,000	Northern Pacific railway.
Chehalis	Lewis	Wm. West	W. A. Westover	H. C. Coffman	1,775	5,000	Steamers to Seattle.
Chelan	Chelan	C. C. Jackson	W. M. Emerson	C. E. Rusk		900	Northern Pacific railway.
Cheney	Spokane	L. Walter	J. W. Minnick	L. R. Houck	781	1,600	Steamers on river and lake.
Chewelah	Stevens	W. H. Brownlow	T. L. Montgomery	E. D. Germain		1,500	N. P. Ry.; Spokane Electric Ry.
Clarkston	Asotin	D. B. Parks	E. A. Bass	R. B. Hooper		2,500	S. F. & N. branch G. N. Ry.
Cle Elum	Kittitas	L. R. Thomas	S. E. Willis			2,500	O. R. & N. and N. P. Rys.; steamers.
Colfax	Whitman	Wm. Lippitt	H. Bramwell	C. R. Lorne	2,121	3,500	Northern Pacific and Milwaukee Ris.
Colton	Whitman	W. H. Renfro	L. F. Gibbs	C. R. Lorne	251	500	O. R. & N.; S. & I. Electricity.
Colville	Stevens	L. B. Harvey	A. B. Sansburn	L. E. Jesseph	594	2,000	Branch Northern Pacific railway.
Conconnully	Okanogan	C. H. Lovejoy	Wm. Baines	W. S. McClure		500	Spokane Falls & Northern railway.
Cosmopolis	Chehalis	L. B. Hogan	W. S. McLaughlin		1,004	1,200	Stage.
Coulee City	Grant	F. W. McCann	A. Kirkpatrick	G. T. Walter		300	N. P. Ry. and steamship lines.
Creston	Lincoln	F. A. Duncan	D. F. Peffley			500	Northern Pacific railway.
Cunningham	Adams	F. W. Parker	A. J. Haile	A. J. Haile		350	W. C. branch N. P. Ry.
Davenport	Lincoln	W. C. Graham	Lee Odgers	F. W. Anderson	1,000	2,800	Northern Pacific railway.
Dayton	Columbia	H. C. Benbow	R. O. Dyer	F. W. Guernsy	2,216	3,500	Central Washington railway.
Deer Park	Spokane	W. D. Phillips	R. G. Cole	W. D. Phillips		1,100	N. P. and O. R. & N. railways.
Edmonds	Snohomish	Jas Brady	G. M. Leyda	E. M. Allen	474	2,000	Great Northern railway.
Elberton	Whitman	R. A. Cox	J. W. Berkstresser	A. B. Metz	297	600	Great Northern Ry. and steamers
Ellensburg	Kittitas	W. J. Peed	J. J. Poyser	Wayne Murray	1,737	5,500	Oregon Railroad & Nav. Co.'s Ry.
Elma	Chehalis	C. E. Gouty	E. S. Avey	E. S. Avey	894	2,700	Northern Pac. and Milwaukee Rys.
Endicott	Whitman	C. L. Wakefield	M. A. Sherman, Jr.			600	N. P. Ry., two branches.
Ephrata	Grant	Dr. Chaffee	Lee Tolliver				Oregon Railroad & Nav. Co.'s Ry.
Everett	Snohomish	Newton Jones	C. C. Gilman	E. E. Johnston	7,838	35,000	Great Northern railway.
Fairfield	Spokane	C. A. Loy	M. Walser	O. H. Loe		500	N. P. and G. N. Rys. and steamers.
Farmington	Whitman	E. E. Paddock	C. H. Bass	C. H. Bass	434	780	Oregon Railroad & Nav. Co.'s Ry.
Ferndale	Whatcom	J. B. Wilson	C. Kelley	Percy Hood			O. R. & N. and N. P. railways.
Garfield	Whitman	H. S. McClure	J. L. Rogers	F. H. Michaelson	697	1,350	Great Northern railway.
Georgetown	King	John Mueller	John Beek	C. A. Thorndyke		5,500	O. R. & N., N. P. and S. & I. Rys.
Goldendale	Klickitat	Allen Bonebrake	J. R. Putman	C. W. Ramsay	788	1,200	One Interurban, 3 steam railways.
Granite Falls	Snohomish	C. E. Willoughby	C. T. Smith	W. R. Moore		800	Spokane, Portland & Seattle Ry.
Hamilton	Skagit	H. I. Bratlie	S. H. Sprinkle	Thos. Conby	392	500	Branch of Northern Pacific railway.
Harrington	Lincoln	A. G. Mitchum	W. W. Gwinn			1,200	G. N. Ry.; Skagit river steamers.
Hartline	Grant	E. A. Whitney	T. E. Jenkins			300	Great Northern railway.
Hatton	Adams	J. M. Batten	W. C. Sallee			600	Northern Pacific railway.

Hillyard	Spokane	M. H. Gordon	J. L. Cramer	J. L. Cramer		2,500	Elec. interurb.; G. N. and S. F. & N.
Hoquiam	Chehalis	Dr. T. C. Frary	Z. T. Wllson	W. C. Gregg	2,608	11,000	Northern Pacific Ry. and steamers.
Ilwaco	Pacific	W. P. Rowe	J. A. Howerton	A. A. Seaborg	584	900	O. R. & N. railway and steamers.
Index	Snohomish	H. L. Bartlett	H. F. Wilcox			500	Great Northern railway.
Kahlotus	Franklin	E. R. Doughty	E. L. Chittenden			300	O. R. & N. and S. P. & S. railways.
Kalama	Cowlitz	A. L. Watson	E. N. Howe	E. N. Howe	554	1,250	Northern Pacific Ry. and steamers.
Kelso	Cowlitz	M. J. Lord	Max Whittlesey	W. M. Signor	694	2,500	Northern Pacific Ry. and steamers.
Kennewick	Benton	L. E. Johnson	G. N. Calhoun	S. Z. Hendersen		1,500	N. P. Ry.; P. & S. Ry. and steamers.
Kent	King	M. M. Morrill	L. E. Price	B. A. Bowen	755	3,000	N. P. and Mil. Rys.; P. S. Elec. Ry.
Kettle Falls	Stevens	H. L. Childs	A. R. Squire	E. A. Blakeley		600	N. P. and O. R. & N. railways.
Kirkland	King	R. H. Collins	J. S. Courtright	W. R. Stevens		750	N. P. Ry. and ferry to Seattle.
LaConner	Skagit	J. F. Dwelley	J. S. Church	W. E. Schreeker	564	800	Boat and stage.
Lakeside	Chelan	Jos. Darnell	S. B. Russell			400	Stage and steamer.
Latah	Spokane	W. H. Taylor	Chas. White	Chas. White	253	500	Oregon Railroad & Nav. Co's Ry.
Leavenworth	Chelan	Lewis J. Nelson	G. A. Hamilton			1,500	Great Northern railway.
Lind	Adams	J. T. Dirstine	Day Imus	R. S. Hamilton		1,400	Oregon Railroad & Nav. Co's Ry.
Little Falls	Lewis	E. C. Brown	G. E. Grow	W. A. Willis		800	Northern Pacific railway.
Lynden	Whatcom	Walter Elder	F. W. Bixby	R. W. Green	365	1,500	B. B. & B. C. railway.
Mabton	Yakima	T. W. Howell	W. H. Ashton	G. T. Morgan		1,200	Northern Pacific railway.
Marysville	Snohomish	W. H. Roberts	B. D. Curtiss	P. E. Coffin	728	1,500	Great Northern Ry. and steamers.
Medical Lake	Spokane	M. J. Grady	R. R. McCorkell	W. H. Mills	516	1,400	N. P. and W. W. P. Electric Rys.
Milton	Pierce	C. H. Weekes	W. J. Keller	J. S. Williams		650	Puget Sound Electric railway.
Monroe	Snohomish	J. H. Campbell	Arthur Root	L. P. Tallman		2,500	Great Northern railway.
Montesano	Chehalis	Geo. W. Winemire	R. H. Fleet		1,194	3,500	Northern Pacific railway.
Mt. Vernon	Skagit	Wm. Dale	J. S. Bowen	Frank Pickering	1,120	4,000	Great Northern railway.
Newport	Stevens	E. S. Appel	Ed Beitton	R. S. Anderson		1,500	Great Northern Ry. and steamers.
North Yakima	Yakima	P. M. Armbruster	J. G. Brooker	H. P. James	3,124	12,000	Northern Pacific railway.

NOTE 1.—County seats in black face type.

NOTE 2.—Population estimates for 1909 were supplied by local authorities, the school census, upon which the estimates of this Bureau are usually based, not being available at the time this publication was compiled.

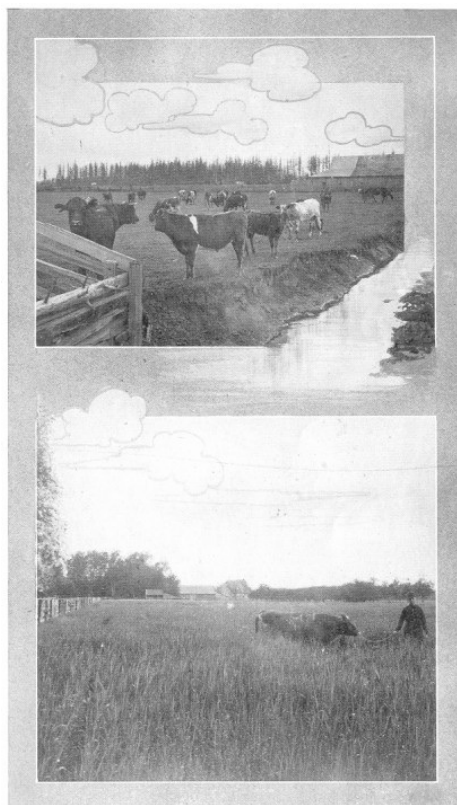


Plate No. 89.—Dairying, a Growing Industry in Whatcom County.

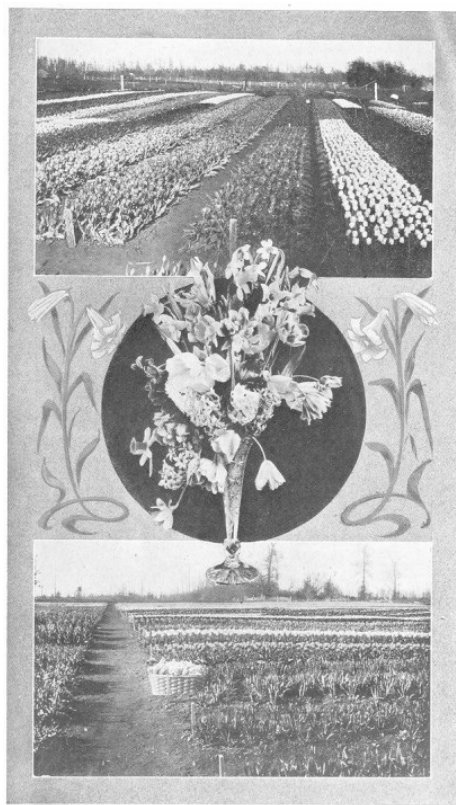


Plate No. 90.—Whatcom County Bulb Gardens.

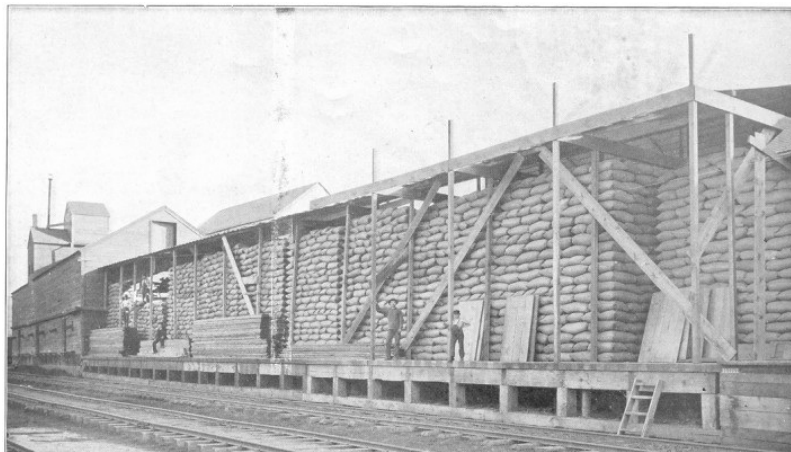
NAME.	County.	Mayor.	Clerk.	Sec'y Commercial Organization.	Pop. U. S. Cens. 1900	Est. Pop. 1909	Transportation Lines.
Oakesdale	Whitman	R. J. Neergaard	F. S. Baer		928	1,200	N. P. and O. R. & N. railways.
Oakville	Chehalis	J. E. Fitzgerald	J. W. Scott	O. H. Fry		600	Northern Pacific railway.
Ocosta	Chehalis	C. C. Flowers	Andrew Wallace			150	Steamers and railway.
Odessa	Lincoln	F. J. Guth	W. M. Nevins	H. L. Cole		1,200	Great Northern railway.
Okanogan	Okanogan	H. J. Kerr	T. B. Collins	T. B. Collins		600	River steamers.
Olympia	Thurston	Mitchell Harris	J. R. Dever	John M. Wilson	4,082	12,000	N. P. Ry.; P. T. & S. Ry.; steamers.
Oroville	Okanogan	E. A. McMahon	C. S. Taylor	F. A. De Vos		800	Great Northern railway.
Orting	Pierce	Frank Lotz	C. W. Van Scoyoc	M. C. Hopkins	728	1,000	Northern Pacific railway.
Palouse City	Whitman	C. H. Farnsworth	G. D. Kincaid	G. D. Kincaid	929	3,000	Four railroads.
Pasco	Franklin	C. S. O'Brien	L. D. Conrad	W. D. Fales	254	1,800	N. P. Ry.; P. & S. Ry.; steamers.
Pataha	Garfield	D. Evens	Chas. Ward			250	Oregon Railway & Nav. Co's Ry.
Paulsbo	Kitsap	A. B. Moe	Paul Paulson	Paul Paulson		800	Steamers to Seattle.
Pe Ell	Lewis	August Mayer	C. W. Boynton	P. M. Watson		1,000	Northern Pacific railway.
Pomeroy	Garfield	H. C. Krouse	H. St. George		953	1,800	Oregon Railroad & Nav. Co's Ry.
Port Angeles Pt. Orchard Pt. Townsend	Clallam	E. E. Seevers	C. W. Fields	J. M. Davis	2,321	2,500	Steamer and stage lines.
Prescott	Kitsap	R. E. Bucklin	Wm. C. Bading		754	900	Steamers, Seattle and Tacoma.
	Jefferson	Max Gerson	Geo. Anderson	P. C. Peterson	3,443	5,000	P. T. & S. Ry. and Sound steamer.
Prosser	Walla Walla	Jos. Utter	R. B. Smith	T. B. Grumwell		650	Oregon Railroad & Nav. Co's Ry.
Pullman	Benton	Albert Smith	Lon Boyle	H. W. Carnahan	229	2,000	Northern Pacific railway.
	Whitman	H. V. Carpenter	Geo. N. Henry	B. F. Campbell	1,308	3,000	N. P. and O. R. & N. railways.
Puyallup	Pierce	J. P. Melrose	J. L. La Plante	J. P. Leavitt	1,884	7,000	N. P. and Mil. Rys.; Elec. line Tac.
Quincy	Grant	F. T. Campbell	R. C. Wightmar	Geo. W. Downer		400	Great Northern railway.
Raymond	Pacific	A. C. Little	J. H. Callahan	W. R. Struble		2,500	Northern Pacific Ry. and steamers.
Reardan	Lincoln	W. S. Bliss	W. H. Padley	H. G. Burns		800	Central Washington railway.
Renton	King	Benj. Ticknor	A. W. Ticknor	P. W. Houser		3,000	Steam and electric railways.
Republic	Ferry	Jno. Stack	M. H. Joseph	M. H. Joseph	2,500	1,250	Great Northern branch line.
Ritzville	Adams	W. R. Peters	J. L. Cross	J. L. Cross	761	2,600	Northern Pacific railway.
Rockford	Spokane	J. Kindschuh	A. B. McDaniel	J. W. Lowe	433	1,200	Oregon Railroad & Nav. Co's Ry.
Rosalia	Whitman	R. P. Turnley	F. S. Chetal	A. A. Wonnell	379	1,400	Northern Pacific and Milwaukee Rys.
Roslyn	Kittitas	J. G. Green	Thos. Ray		2,786	4,500	Northern Pacific railway.

Roy	Pierce	A. W. Wert	C. W. Elder			400	Northern Pacific and Tac. East. Rys.
Ruston	Pierce	J. P. Garrison	V. D. Goss			800	Northern Pacific Ry. and steamers.
Seattle	King	Jno. F. Miller	H. W. Carroll	C. B. Yandell Geo. E. Boos	80,671	275,000	N. P.; G. N.; Mil.; C. P. R.; Bur.; C. & P. S.; P. S. E. Rys.; S. S. lines.
Sedro-Woolley	Skagit	C. E. Bingham	T. J. Morrow	M. B. Holbrook	885	3,450	N. P. and G. N. Rys. and steamers.
Shelton	Mason	G. W. Draham	F. C. Mathewson	G. C. Angle	883	1,200	Steamers to Olympia.
Snohomish	Snohomish	C. H. Lamprey	E. Thistlewaite	W. W. Reed	2,101	4,000	G. N., N. P. and C. P. Rys.; steamers.
Snoqualmie	King	Otto Reinig				400	Northern Pacific railway.
South Bend	Pacific	W. P. Cressy	C. H. Mills	F. G. McIntosh	711	3,000	Northern Pacific Ry. and steamers.
Spangle	Spokane	J. H. Gruenwald	M. H. Sullivan	E. C. Rohweder	431	450	Branch Northern Pacific railway.
Spokane	Spokane	C. H. Moore	C. A. Fleming	L. G. Monroe A. W. Jones	36,848	120,000	N. P.; G. N.; O. R. & N.; P. & S.; Spok. Int.; W. W. P. and S. & I. Rys.
Sprague	Lincoln	J. W. Shearer	J. V. Muzzy	J. S. Freese	695	1,500	Northern Pacific railway.
Springdale	Stevens	Jacob Keller	A. E. Bidgood			500	Spokane Falls & Northern railway.
Stanwood	Snohomish	A. B. Klæboe	G. M. Mitchell	L. Livingstone		1,000	Rail and steamer.
Starbuck	Columbia	H. A. Johnson	B. A. Whiting	J. B. Atkinson		750	Oregon Railroad & Nav. Co's Ry.
Steilacoom	Pierce	E. Church	M. P. Potter	Mr. Annis		1,000	Electric railway and steamers.
Stevenson	Skamania	A. Fleischhauer	R. C. Sly	R. C. Sly		400	Portland & Seattle railway.
St. John	Whitman	W. S. Ridenour	W. S. Mott	G. W. Case, Jr		700	Oregon Railroad & Nav. Co's Ry.
Sultan	Snohomish	W. W. Morgan	T. W. Musgrove	T. W. Musgrove		500	Great Northern railway.
Sumas	Whatcom	R. S. Lambert	L. Van Valkenburg	Lars Barbo	319	1,500	C. P. Ry.; N. P. Ry. G. N. Ry.
Sumner	Pierce	R. R. White	E. D. Swezey	R. R. White	531	1,000	Northern Pacific railway.
Sunnyside	Yakima	H. W. Turner	H. F. Wright	J. A. Vince		1,600	Northern Pacific railway.
Tacoma	Pierce	J. W. Linck	L. W. Roys	P. L. Sinclair O. F. Cospier	37,714	125,000	N. P.; Mil.; T. & E.; U. P. and G. N. Rys.; Electric and S. S. lines.
Tekoa	Whitman	T. H. Follett	J. S. Woods	J. P. Burson	717	1,200	O. R. & N. and Milwaukee Rys.
Tenino	Thurston	L. J. Miller	S. M. Peterson			1,000	Northern Pacific and P. T. & S. Rys.
Toledo	Lewis	J. H. Douge	W. H. Carpenter	H. H. Hurst	285	500	Northern Pacific Ry.; River steamer.
Toppenish	Yakima	C. W. Grant	T. W. Johnston	J. G. Hillyer		2,000	Northern Pacific railway.
Tukwila	King	Joel Shomaker	E. F. Greene	E. F. Greene		700	Puget Sound Electric railway.
Tumwuter	Thurston	A. Whitmarsh	A. J. Colby		270	1,500	Port Townsend & Southern railway.
Uniontown	Whitman	Peter Friesoh	J. J. Gans	W. H. Oyler	404	500	Northern Pacific railway.
Vancouver	Clarke	J. P. Kiggins	F. W. Bier	H. S. Bartow	4,006	8,000	N. P., P. & S. Rys. and steamers.
Waitsburg	Walla	R. M. Breeze	J. B. Lowndagin	W. S. Guntle	1,011	1,600	O. R. & N. and N. P. railways.
Walla Walla	Walla	Eugene Tausick	T. D. S. Hart	A. C. Moore	10,049	22,000	N. P. and O. R. & N. railways.
Wuputo	Yakima	J. F. Douglas	H. E. Trimble			500	Northern Pacific railway.
Washtucna	Adams	G. W. Bassett	C. E. Wilson			400	O. R. & N.; S., P. & S. railways.
Waterville	Douglas	J. M. Hunter	J. E. Walker	Jas. G. Tuttle	482	1,200	Stage and steamer.
Waverley	Spokane	Fred Dashiell	A. L. Robinson	Jno. Reyecraft		500	O. R. & N. and Electric railways.
Wenatchee	Chelan	J. A. Gellatly	S. R. Sumner	D. N. Gellatly	451	5,000	Great Northern Ry.; Col. river str.
White Salmon	Klickitat	G. F. Jewett	W. C. Manly	J. M. Lewis		600	S. P. & S. Ry., and river steamer.
Wilbur	Lincoln	W. W. Foley	T. W. Maxwell	T. W. Maxwell		1,500	Northern Pacific railway.
Wilson Creek	Grant	W. H. O'Larey	F. E. Snedikor	F. E. Snedikor		500	Great Northern railway.
Winlock	Lewis	H. A. Baldwin	C. E. Leonard	C. E. Leonard		1,600	Northern Pacific railway.
Woodland	Cowlitz	L. M. Love	D. W. Whitlow	E. F. Bryant		800	Northern Pacific Ry. and steamers
Yacolt	Clarke	W. J. Hoag	Wm. W. Eaton	C. J. Dorsey		500	Northern Pacific railway.

STATE OFFICERS, COMMISSIONS, BOARDS AND PUBLIC INSTITUTIONS OF WASHINGTON.

OFFICE.	Name.	P. O. Address.
Governor	M. E. Hay	Olympia.
Governor's Private Secretary	Frank M. Dallam, Jr	Olympia.
Secretary of State	I. M. Howell	Olympia.
Assistant Secretary of State	Ben R. Fish	Olympia.

Auditor	C. W. Clausen	Olympia.
Deputy Auditor	F. P. Jameson	Olympia.
Treasurer	John G. Lewis	Olympia.
Deputy Treasurer	W. W. Sherman	Olympia.
Attorney General	W. P. Bell	Olympia.
Assistant Attorney General	W. V. Tanner	Olympia.
Assistant Attorney General	W. F. McGill	Olympia.
Assistant Attorney General	Geo. A. Lee	Spokane.
Commissioner of Public Lands	E. W. Ross	Olympia.
Assistant Comm'r of Public Lands	Frank C. Morse	Olympia.
Insurance Commissioner	John H. Shively	Olympia.
Deputy Insurance Commissioner	S. A. Madge	Olympia.
Superintendent Public Instruction	Henry B. Dewey	Olympia.
Assistant Supt. Public Instruction	J. M. Layhue	Olympia.
Deputy Supt. Public Instruction	F. F. Nalder	Olympia.
Adjutant General	Geo. B. Lamping	Seattle.
Commissioner of Labor	Chas. F. Hubbard	Olympia.
State Librarian	J. M. Hitt	Olympia.
Law Librarian	C. W. Shaffer	Olympia.
Traveling Library	Mrs. Lou J. Diven, Supt.	Olympia.
Board of Control	Eugene Lorton	Walla Walla.
	H. T. Jones	Olympia.
	H. E. Gilham	Olympia.
State Grain Inspector	E. C. Armstrong	Colfax.
Dairy and Food Commissioner	L. Davies	Davenport.
State Fish Commissioner	Jno. L. Riseland	Bellingham.
Commissioner of Statistics	I. M. Howell, Ex-Officio	Olympia.
Deputy Commissioner of Statistics	Geo. M. Allen	Seattle.
Horticultural Commissioner	F. A. Huntley	Tacoma.
Coal Mine Inspector	D. C. Botting	Seattle.
Inspector of Oils	F. A. Clark	Seattle.
Public Printer	E. L. Boardman	Olympia.
Bank Examiner	J. L. Mohundro	Seattle.
Hotel Inspector	J. H. Munger	Seattle.
A.-Y.-P. E. Commission	Geo. E. Dickson, Chairman	Ellensburg.
	L. P. Hornberger, Sec.	Seattle.
	W. A. Halteman, Exec. Commis.	Seattle.
	M. M. Godman	Seattle.
	R. W. Condon	Port Gamble.
	J. W. Slayden	Steilacoom.
	L. H. Burnett	Aberdeen.
Railway Commission	H. A. Fairchild, Chairman	Olympia.
Tax Commission	T. D. Rockwell, Chairman	Olympia.
Fire Warden and Forester	J. R. Welty	Olympia.
Highway Commissioner	J. M. Snow	Olympia.
Board of Accountancy	Alfred Lister, Sec'y	Tacoma.
Bureau Inspection Public Offices	C. W. Clausen, Ex-officio Chief	Olympia.
Board of Health	E. E. Hegg, Sec'y	Seattle.
Board of Barber Examiners	Chas. W. Whisler	Seattle.
Board of Medical Examiners	Dr. J. Clinton McFadden, Secy.	Seattle.
Board of Pharmacy	P. Jensen, Sec'y	Tacoma.
Board of Dental Examiners	E. B. Edgars	Seattle.
EDUCATIONAL INSTITUTIONS.		
University of Washington	Thomas Franklin Kane, Pres.	Seattle.
State College	E. A. Bryan, Pres.	Pullman.
State Normal School	H. C. Sampson, Principal	Cheney.
State Normal School	E. C. Mathes, Principal	Bellingham.
State Normal School	W. E. Wilson, Principal	Ellensburg.
School for Deaf	Thos. P. Clark, Superintendent	Vancouver.
School for Blind	Geo. H. Mullin, Principal	Vancouver.
State Training School	C. C. Aspinwall	Chehalis.
OTHER STATE INSTITUTIONS.		
Soldiers' Home	Gen. Geo. W. T. Tibbetts, Com.	Orting.
Soldiers' Home	Willis L. Ames, Com.	Port Orchard.
Insane Asylum	A. P. Calhoun, Supt.	Fort Steilacoom.
Insane Asylum	J. M. Semple, Supt.	Medical Lake.
State Penitentiary	C. S. Reed, Warden	Walla Walla.
State Reformatory	Cleon B. Roe, Supt.	Monroe.
Institution for Feeble Minded	S. C. Woodruff, Supt.	Medical Lake.



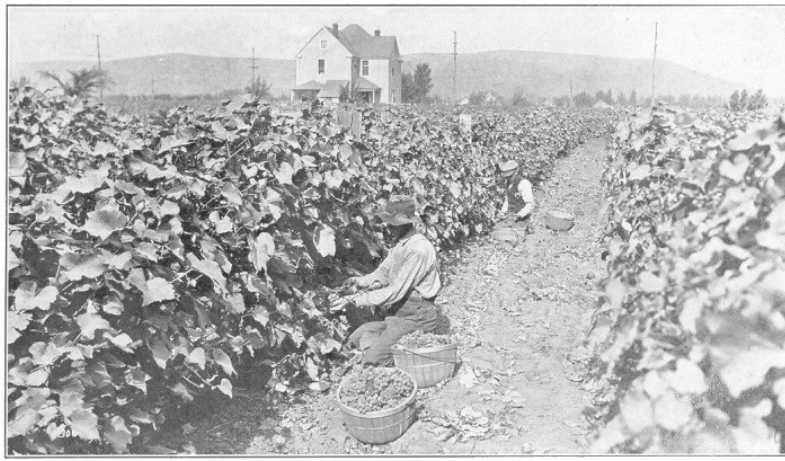


Plate No. 92.—A Yakima County Vineyard.



Plate No. 93.—Yakima County Potatoes—600 Bushels to the Acre.

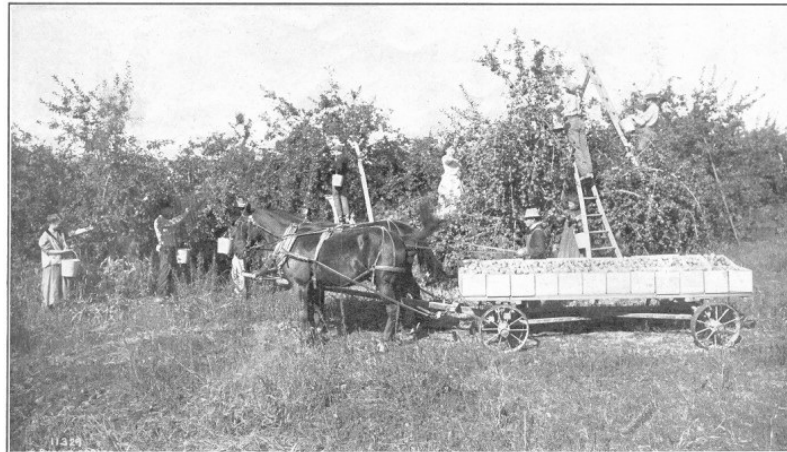


Plate No. 94.—A Yakima County Orchard Scene.

Statement Showing Area of State School and Granted Lands in Each County. Area Sold by Deeds and Contracts of Sale. Compiled for Period Up to and Including September 30, 1908.

COUNTIES.	Total area of school and granted lands.	Total area deeded.	Area under contract of sale.	Total area sold by deed and under contract.	Remaining area unsold.
Adams	85,632.25	1,063.30	12,320.00	13,383.30	72,248.95
Asotin	26,906.56	161.90	1,360.00	1,521.90	25,384.66
Benton	92,937.68	1,626.75	8,629.90	10,256.65	82,681.03
Chehalis	77,064.41	7,883.93	1,823.85	9,707.78	67,356.63
Chelan	52,526.50	212.34	1,074.70	1,287.04	51,239.46
Clallam	77,514.28	2,914.42	320.00	3,234.42	74,279.86
Clarke	36,972.16	3,694.27	1,585.85	5,280.12	31,692.04
Columbia	24,640.00	5,084.00	1,620.00	6,704.00	17,936.00
Cowlitz	85,373.80	6,364.43	1,063.73	7,428.16	77,945.00
Douglas	313,235.66	3,416.62	64,211.62	67,628.52	245,607.14
Ferry	21,219.51				21,219.51
Franklin	40,731.85	101.83	3,720.00	3,821.83	36,910.02
Garfield	21,298.47	2,179.21	1,760.00	3,939.21	17,359.26
Island	16,202.70	4,679.93	1,350.25	6,030.18	10,172.52
Jefferson	87,358.34	12,760.91	1,306.77	14,067.68	73,290.66
King	86,020.13	15,667.80	5,195.95	20,863.75	65,156.38
Kitsap	27,157.40	12,178.10	1,794.70	13,972.80	13,184.60
Kittitas	129,590.97	4,648.01	1,840.00	6,488.01	123,102.96
Klickitat	77,280.86	2,340.84	4,143.17	6,484.01	70,796.85
Lewis	86,566.86	4,328.31	2,106.01	6,434.32	80,132.54
Lincoln	84,088.45	4,818.00	12,620.00	17,438.00	66,650.45
Mason	48,057.72	4,750.53	651.98	5,402.51	42,655.21
Okanogan	90,517.34	399.55	12,487.62	12,887.17	77,630.17
Pacific	60,529.29	2,187.81	1,401.90	3,589.71	56,939.58

Pierce	62,118.55	8,899.98	2,056.82	10,956.80	51,161.75
San Juan	4,765.63	366.35	205.25	571.60	4,194.03
Skagit	92,191.75	4,551.83	1,718.17	6,270.00	85,921.75
Skamania	44,699.55	5,690.08	988.50	6,678.58	38,020.97
Snohomish	47,937.99	7,545.13	5,392.45	12,927.58	35,000.41
Spokane	67,457.64	6,943.59	15,360.20	22,303.79	45,153.85
Stevens	164,063.72	561.19	4,748.50	5,309.69	158,754.03
Thurston	33,443.79	4,286.82	1,636.87	5,923.69	27,520.10
Wahkiakum	26,053.26	1,795.95	451.55	2,257.50	23,795.76
Walla Walla	50,536.97	6,785.98	7,219.46	14,005.44	36,531.53
Whatcom	41,196.49	2,729.50	4,591.52	7,321.02	33,875.47
Whitman	80,351.82	14,583.47	21,322.96	35,906.43	44,445.39
Yakima	143,102.97	3,927.59	5,169.50	9,097.09	134,005.88
Totals	2,607,343.32	172,130.53	215,259.75	387,390.28	2,219,953.04

NOTE:—The statement of total area of school and granted lands by counties includes only approved indemnity selected, approved granted lands, and school sections 16 and 36 in place.

UNAPPROPRIATED FEDERAL LANDS OF WASHINGTON.

LAND DISTRICT AND COUNTRY.	Area unappropriated and unreserved			Brief description of character of unappropriated and unreserved land.
	Surveyed.	Unsurveyed.	Total.	
North Yakima:				
Benton	27,062		27,062	Rolling prairie, hilly, grazing.
Douglas	15,003		15,003	Grazing, prairie, hilly, and timber.
Kittitas	149,351	245,967	395,318	Grazing, arid prairie, and timber.
Yakima	126,072	274,500	400,572	
Total	317,488	520,467	837,955	
Olympia:				
Chehalis	1,491		1,491	Mountainous timbered lands.
Jefferson	860		860	Do.
King	560		560	Do.
Kitsap	40		40	Do.
Lewis	40		40	Do.
Mason	2,537		2,537	Do.
Pacific	80		80	Do.
Pierce	571		571	Do.
Thurston	207		207	Do.
Total	6,886		6,386	
Seattle:				
Clallam	1,240	1,840	3,080	Mountainous and broken; good supply of excellent timber.
King	680	11,680	12,360	Broken and mountainous.
San Juan	324		324	Broken, with little timber.
Skagit	2,475	25,540	28,015	Broken, heavily timbered, and mountainous.
Snohomish	320	5,484	5,804	Do.
Whatcom	840	8,923	9,768	Do.
Total	5,879	53,467	59,346	
Spokane:				
Adams	26,512		26,512	Arid lands, valuable for fruit and grain.
Douglas		1,500	1,500	Arid lands.
Ferry	165,526	379,732	545,258	Farming, grazing, timber, and mineral.
Lincoln	35,632	4,448	40,080	Farming and grazing.
Okanogan	13,343	114,756	128,099	Farming, grazing, and mineral.
Spokane	2,896	3,094	5,990	Do.
Stevens	409,093	711,981	1,121,044	Mountainous, farming, and mineral.
Whitman	2,053		2,053	Grazing lands.
Total	655,055	1,215,511	1,870,566	
Vancouver:				
Clarke	4,787		4,787	Timbered and agricultural.
Cowlitz	16,703	7,080	23,783	Do.
Klickitat	61,553	2,600	64,153	Timbered, agricultural, grazing
Lewis	8,013	4,995	13,008	Timbered and agricultural.
Pacific	1,981		1,981	Do.
Skamania	7,418		7,418	Do.
Wahkiakum	316		316	Timbered.
Total	100,771	14,675	115,446	
Walla Walla:				
Adams	15,188		15,188	Prairie, farming, and grazing lands.
Asotin	83,631	13,293	96,924	Mountainous, some timber, and prairie.
Benton	40,395		40,395	Desert, grazing, some timber, prairie, and farming.
Columbia	15,203	152,279	167,482	Mountainous, some timber, and prairie.
Franklin	42,363		42,368	Prairie, grazing lands; no timber.
Garfield	45,468	44,539	90,007	Farming, grazing, and timber.
Klickitat	24,926		24,926	Grazing and farming; some timber.
Walla Walla	15,522		15,522	Do.
Whitman	15,835		15,835	Prairie, farming, and grazing lands.
Total	298,531	210,111	508,642	
Waterville:				
Chelan	321,518	9,880	331,398	Mountainous, timber, farming.
Douglas	435,207	44,890	480,097	Prairie, farming, and grazing.
Okanogan	206,990	218,175	425,165	Mountainous, timber, and farming.
Total	963,715	272,945	1,236,660	
State total	2,347,825	2,287,176	4,635,001	

CLIMATIC SUMMARY FOR WASHINGTON.

PREPARED BY GEO. N. SALISBURY,
Of the Weather Bureau at Seattle.

The following tables represent averages of observations, covering ten years or more. The stations included in the list are so distributed as to indicate the climatic conditions in every portion of the state.

SOUTHWESTERN WASHINGTON.
STATION: ABERDEEN.

MONTH.	Temperature, in degrees Fahrenheit					Precipitation in inches.		Number of days—				Prevailing direction of the wind
	Mean	Highest	Date	Lowest	Date	Total	Snow-fall	Clear	Partly cloudy	Cloudy	With precipitation	
January	39.9	61	1900	10	1893	10.56	4.8	3	13	15	19	W
February	40.6	73	1905	13	1899	10.43	3.5	3	11	14	20	SW
March	43.7	82	1905	22	1896	7.89	1.6	5	19	7	20	W
April	48.2	88	1905	28	1899	7.66	T	6	16	8	17	W
May	53.0	91	1897	29	1901	4.58	0	6	17	8	15	W
June	56.8	100	1903	34	1901	3.72	0	6	15	9	13	W
July	60.8	105	1891	37	1901	1.02	0	9	17	5	7	W
August	62.1	96	1898	40	1902	1.06	0	11	17	3	5	W
September	57.5	88	1894	30	1901	4.98	0	9	15	6	9	W
October	52.3	85	1891	29	1893	6.71	0	6	14	10	14	W
November	45.1	73	1904	22	1900	15.28	0.5	2	10	18	22	W
December	40.9	60	1892	20	1901	14.66	0.5	4	11	16	20	SW & W
Sums						88.55	10.9	6	14	10	15	
Means or Extremes	50.0	105	July, 1891	10	Jan. 1893							

PUGET SOUND DISTRICT.
STATION: TACOMA AND ASHFORD.

MONTH.	Temperature, in degrees Fahrenheit					Precipitation in inches.		Number of days—				Prevailing direction of the wind
	Mean	Highest	Date	Lowest	Date	Total	Snow-fall	Clear	Partly cloudy	Cloudy	With precipitation	
January	38.0	64	1891	0	1888	7.20	11.0	4	6	21	20	SW
February	38.9	66	1905	5	1887	6.68	12.4	4	7	18	17	SW
March	44.4	74	1900	16	1897	4.82	8.0	6	8	17	18	SW
April	48.9	84	1897	28	1896	4.40	2.8	6	12	12	14	SW
May	54.1	90	1892	33	1894	4.11	0.2	6	12	13	14	SW
June	58.2	97	1903	39	1895	2.62	T	8	10	12	11	N
July	62.0	99	1891	42	1894	1.20	0	15	9	7	6	N
August	61.6	92	1898	40	1895	1.28	0	15	8	8	5	N
September	56.2	87	1894	36	1902	2.74	0	12	8	10	10	N
October	50.6	82	1892	25	1893	4.51	0	8	8	15	12	SW
November	44.2	70	1892	8	1896	9.11	5.2	2	5	23	21	SW
December	40.9	61	1900	19	1894	9.55	4.4	4	7	20	18	SW
Sums						58.22	44.0	7	8	15	14	
Means or Extremes	49.8	99	July, 1891	0	Jan. 1888							

EASTERN WASHINGTON.
STATION: SPOKANE.

MONTH.	Temperature, in degrees Fahrenheit					Precipitation in inches.		Number of days—				Prevailing direction of the wind
	Mean	Highest	Date	Lowest	Date	Total	Snow-fall	Clear	Partly cloudy	Cloudy	With precipitation	
January	24.5	55	1893	-30	1888	2.54	9.4	4	4	23	14	S
February	28.5	59	1896	-23	1890	2.02	8.1	4	7	17	13	E & SW
March	39.7	72	1889	-10	1891	1.40	3.0	7	8	16	12	S
April	48.0	86	1890	22	1890	1.38	0.2	6	10	14	9	S & SW
May	57.0	95	1897	29	1905	1.39	T	6	10	15	10	S
June	62.4	96	1896	34	1891	1.67	T	9	12	10	9	SW
July	69.0	102	1890	39	1893	0.71	0	15	8	8	5	SW
August	69.0	104	1898	40	1902	0.46	0	17	8	6	5	S
September	58.1	98	1888	26	1889	1.04	0	12	7	11	7	NE
October	48.0	86	1892	12	1887	1.39	T	8	9	14	7	NE
November	37.8	70	1903	-13	1896	1.67	2.9	1	5	24	15	S
December	31.3	57	1886	-18	1884	2.56	4.9	3	4	24	13	SW
Sums						18.23	29.4	7	8	15	10	
Means or Extremes	47.8	104	Aug. 1898	-30	Jan. 1888							

SOUTHEASTERN WASHINGTON.
STATION: WALLA WALLA.

MONTH.	Temperature, in degrees Fahrenheit					Precipitation in inches.		Number of days—				Prevailing direction of the wind
	Mean	Highest	Date	Lowest	Date	Total	Snow-fall	Clear	Partly cloudy	Cloudy	With precipitation	
January	32.6	67	1902	-17	1888	2.17	6.1	3	11	17	12	S
February	37.0	69	1896	-15	1893	1.55	5.1	6	13	9	12	S
March	45.2	74	1905	2	1891	1.73	2.7	8	16	7	13	S
April	52.6	89	1890	29	1890	1.76	2	10	17	3	9	S
May	60.1	100	1897	34	1905	1.72	0	12	16	3	11	S

June	65.8	105	1896	40	1901	1.13	0	15	14	1	8	S
July	73.8	108	1891	45	1891	0.37	0	24	6	1	4	S
August	73.8	113	1898	47	1899	0.43	0	23	7	1	4	S
September	63.6	100	1888	36	1900	0.97	0	17	9	4	7	S
October	54.4	87	1904	24	1887	1.50	T	15	12	4	8	S
November	42.8	76	1891	-9	1896	2.17	2.0	4	13	3	13	S
December	37.3	65	1890	-2	1898	2.07	3.5	3	11	17	14	S
Sums						17.58	19.6	12	12	6	10	
Means or Extremes	53.2	113	Aug. 1898	-17	Jan. 1888							

THE IRRIGATED WASHINGTON.
STATION: NORTH YAKIMA, SUNNYSIDE, FT. SIMCOE.

MONTH.	Temperature, in degrees Fahrenheit				Precipitation in inches.		Number of days—				Prevailing direction of the wind	
	Mean	Highest	Date	Lowest	Date	Total	Snow-fall	Clear	Partly cloudy	Cloudy		With precipitation
January	30.4	62	1899	-16	1899	1.82	9.2	7	13	11	7	W
February	35.2	71	1901	-22	1893	1.14	5.6	8	12	9	6	W
March	42.5	78	1895	2	1896	0.57	0.4	12	14	5	3	W
April	51.1	90	1897	18	1896	0.47	T	12	13	5	3	W
May	59.1	101	1897	24	1896	0.74	0	11	14	6	5	W
June	65.4	106	1896	30	1901	0.32	0	15	10	5	4	W
July	71.6	112	1896	36	1905	0.11	0	24	5	2	2	W
August	71.1	109	1897	35	1895	0.21	0	19	9	3	3	W
September	61.1	98	1896	24	1891	0.44	0	17	8	5	4	W
October	51.0	89	1891	13	1893	0.50	0	15	10	6	4	W
November	39.4	73	1897	-23	1896	1.56	4.4	4	12	14	9	W
December	32.3	67	1898	-8	1895	1.47	6.2	7	10	14	7	SW
Sums						9.35	25.8	12	11	7	5	
Means or Extremes	50.9	112	July, 1896	-23	Nov. 1896							

Total Assessment of All Property in the State of Washington as Equalized by the State Board of Equalization for the Year 1908.

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COUNTIES.	Total Real and Personal Property, Exclusive of Railroad and Telegraph.						Railroads. Value as corrected, revised and equalized by state board.	Electric Rys. Value as corrected, revised and equalized by state board.	Telegraph. Value as corrected, revised and equalized by state board.	TOT. Aggre valuat real ; persc proper equal by st boar
	Assessed value returned by county.	Actual value.	Ratio assessed to actual value.	*Exemptions.	Aggregate value of taxable property as returned by county.	Aggregate value as equalized by state board.				
Adams	\$12,934,270	\$32,730,750	\$39.51	* \$347,380	\$12,586,890	\$13,762,846	\$2,445,703		\$10,499	\$16,21
Asotin	3,186,570	6,346,110	50.21	73,600	3,112,970	2,662,208				2,66
Benton	5,900,630	13,967,229	42.24	201,105	5,699,525	5,820,167	2,595,331		5,477	8,42
Chehalis	14,832,671	63,320,298	23.42	* 897,053	13,935,618	26,400,327	798,828	165,258	2,212	27,36
Chelan	7,510,825	17,903,363	41.95	317,510	7,193,315	7,400,630	2,860,892		9,058	10,27
Clallam	7,045,161	14,294,907	49.28	148,017	6,897,144	6,014,517			4,073	6,01
Clarke	9,548,965	22,951,958	41.60	* 552,000	8,996,965	9,342,589	891,275		87	10,23
Columbia	6,677,175	12,916,674	51.69	164,855	6,512,320	5,403,523	908,202		6,775	6,31
Cowlitz	7,506,911	18,774,621	39.98	* 258,305	7,248,606	7,835,434	1,363,089		11,016	9,20
Douglas	13,714,378	32,623,076	42.03	* 792,735	12,921,643	13,271,073	3,703,546		9,650	16,98
Ferry	1,323,524	2,205,873	60.00	* 132,674	1,190,850	818,278	1,359,278			2,17
Franklin	4,029,979	12,053,842	33.43	* 121,309	3,908,670	5,075,102	1,852,025		7,975	6,93
Garfield	4,230,446	9,466,437	44.68	123,027	4,107,419	3,957,954	144,067		555	4,10
Island	1,296,572	3,706,168	34.98	100,545	1,196,027	1,497,184				1,49
Jefferson	4,566,042	9,932,771	45.96	92,864	4,473,178	4,189,154	417,464		3,695	4,61
King	*204,852,223	437,905,564	46.78	5,011,716	199,840,507	183,769,507	11,882,802	7,477,860	38,645	203,16
Kitsap	4,145,045	9,133,183	45.38	* 271,777	3,873,268	3,665,538			2,325	3,66
Kittitas	8,853,102	20,145,643	43.98	421,605	8,431,497	8,263,182	3,674,706		10,194	11,94
Klickitat	5,869,515	14,199,834	41.33	366,835	5,502,680	5,754,713	1,108,683			6,86
Lewis	17,959,730	39,028,152	46.01	673,137	17,286,593	16,151,899	2,050,492		12,186	18,21
Lincoln	18,046,865	44,933,712	40.16	* 844,061	17,202,804	18,526,862	4,456,845		12,648	22,96
Mason	3,030,375	10,744,059	28.20	97,386	2,932,989	4,534,378	7,791			4,54
Okanogan	3,750,417	6,540,821	57.33	421,615	3,328,802	2,398,133	834,844			3,23
Pacific	7,036,354	22,947,129	30.66	95,700	6,940,654	9,796,807	418,310		1,438	10,21
Pierce	76,828,090	181,499,746	42.33	2,903,450	73,924,640	75,341,091	4,589,415	1,900,370	22,077	81,88
San Juan	1,553,856	3,789,892	41.00	* 126,818	1,427,038	1,507,004				1,50
Skagit	10,867,150	38,346,941	28.33	297,600	10,569,550	16,233,766	2,177,605		7,518	18,41
Skamania	4,063,188	6,375,330	63.73	66,300	3,996,883	2,682,105	332,926			3,01
Snohomish	* 25,699,461	54,494,192	47.16	1,221,570	24,477,891	22,270,886	8,064,368	910,195	18,950	31,26
Spokane	80,038,409	154,967,786	51.64	2,956,265	77,082,144	63,850,348	8,402,563	2,131,611	31,075	74,41
Stevens	6,675,908	17,811,897	37.48	* 654,238	6,021,670	7,024,471	1,994,897		6,353	9,02
Thurston	8,325,065	23,882,038	34.85	518,971	7,806,094	9,776,576	1,561,390	76,530	10,096	11,42
Wahkiakum	1,668,376	4,319,197	38.62	69,616	1,598,760	1,792,390				1,79
Walla Walla	19,434,380	45,866,287	42.37	369,000	19,065,380	19,403,957	3,797,744	131,082	14,574	23,34
Whatcom	19,853,046	48,038,017	41.32	* 1,460,250	18,392,796	19,248,939	3,372,306	630,373	7,457	23,27
Whitman	19,098,175	60,560,413	31.53	1,160,290	17,937,885	24,947,304	3,296,322	528,248	19,897	28,27
Yakima	23,625,355	48,428,184	48.78	* 1,517,390	22,053,965	19,306,001	3,278,556	10,000	6,852	22,60
Totals	\$675,578,199	\$1,567,152,094	\$43.11	\$25,902,569	\$649,675,630	\$649,696,709	\$84,642,349	\$13,961,527	\$293,357	\$748,55

[Footnote *:Exception includes the amount returned by these counties under the item "Moneys on hand" allowed by the Board.]

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STATE BUREAU OF STATISTICS AND IMMIGRATION.

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

GEO. M. ALLEN,
Deputy Commissioner.

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