

OREGON ALMANAC

OFFICIAL PAMPHLET

Published by

**THE STATE OF OREGON FOR THE INFORMATION
OF HOMESEEKERS, SETTLERS AND INVESTORS**



OREGON STATE IMMIGRATION COMMISSION

C. C. CHAPMAN, Oregon State Immigration Agent

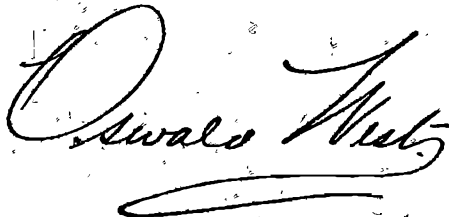
THE "LAND OF OPPORTUNITY"

Oregon is a state of agricultural opportunity. Its broad areas of undeveloped farming land offer matchless advantages to those who will come and till them. Every section of the state wants settlers. To such as have industry and will undertake the development of the idle acres, rich rewards await.

Never before has the state of Oregon been so diligent in the development of agriculture, its greatest asset, as now. The state is anxious that every farmer who comes to it shall thrive. Not only the Oregon State Agricultural College, one of the most efficient of all such institutions in the whole country, but every other agency is working for the success of the agricultural interests.

Experimental and development farms dot the state. The commercial bodies and the business community are allied to advance the interests of the tiller of the soil, and the business men of the chief cities work for the betterment of the farming districts, knowing that in doing this they are building the surest foundations for the future of Oregon.

The whole state bids the farmer welcome. Its fertile soil and genial climate work in partnership with all these interests to make his life pleasant and his work profitable. With the growing markets and the widening demand for his products, the husbandman will find this a region of never-failing, bountiful crops and remunerative rewards.

A large, elegant handwritten signature in dark ink, reading "Oswald West". The signature is written in a cursive style with a long, sweeping underline.

Governor of Oregon.

THE STATE *of* OREGON

Its Resources and Opportunities

Official pamphlet published for the information of homeseekers,
settlers and investors, by the Oregon State Immigration Agent

under the authority of the

Twenty-Sixth Legislative Assembly
OSWALD WEST, GOVERNOR

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"MADE IN OREGON."

All the materials entering into the make-up of the Oregon Almanac are Oregon products. But a short time ago the paper upon which you are reading of the facts about Oregon, both cover and inside, was in balm trees that pushed their peaked growths toward the skies of the Willamette Valley. The trees were cut, their fibre crushed to pulp, the paper manufactured in Oregon, and today it carries the tale of Oregon's opportunities to millions of readers East, West, North and South. The printing; the engraving of the zinc etchings and half-tones; the drawing of the illustrations; the draughting of the figurative charts and maps—everything was done in Oregon. There is an ever growing sentiment that is daily being put to the practical test of "Made in Oregon." This sentiment means more than the mere words to our people. It is a state-wide loyalty to the idea that Oregon people believe to the utmost in utilizing Oregon's rich resources. They may be depended upon to encourage with their patronage all who come to the state and invest their capital in manufacturing enterprises. The people appreciate every effort put forth for the fullest and quickest development of Oregon.

INTRODUCTION.

Oregon invites the earnest homeseeker who desires to better his condition, and it is the purpose of the state officers, as well as the community organizations, to see that accurate representations are made for the guidance of all who seek to avail themselves of the boundless opportunities in this large and prosperous, but thinly populated, state.

All authorities unite in stating that Oregon can support in happiness and prosperity a population of many millions. The people of Oregon extend a spirited and cordial welcome to all who, with the capability and purpose of making homes for themselves, would come to this new country and join in the upbuilding of a proud commonwealth.

How to Succeed in Oregon.

Oregon's climate is far more favorable than can be found anywhere east of the Pacific slope.

Oregon's hillsides and valleys are rich and fertile; her scenery is matchless in grandeur.

Oregon's home environment is delightfully attractive.

Conditions for success are far more favorable than in any of the older, thickly populated states.

All who look to Oregon for a future home should remember, however, that the same qualities of industry, prudence and perseverance are required for success here that would be needed anywhere.

No one should come to Oregon expecting to "get rich quick;" to achieve success without work and well applied knowledge. Above all, no one should come to Oregon expecting to find immediate employment in any line, in any of the cities or towns. When you come, bring enough funds to provide traveling and living expenses for a considerable period while you are visiting different localities and searching for the opportunity which appeals to you and in which you have confidence you can succeed. Do not build up false hopes of fabulous affluence and easy life without work.

In selecting a location for an Oregon home, the newcomer should visit the locality and inspect the land, to learn whether it is suited to the tastes and requirements of his family and the special branch of agricultural industry in which he expects to engage. He should consult the leading business men of the commercial organizations of the neighboring community and satisfy himself as to his purchase. If he does not find exactly what he wants in one part of the state, it will pay to investigate further, as conditions are so diversified in Oregon that no long search will be necessary to locate satisfactorily. Once located you will find yourself among hospitable and sociable neighbors, whose delight it is to be of service to the newcomer, and by information and co-operation be of every assistance to him and make him feel at home and help him succeed. A warm welcome into churches, schools, granges, improvement clubs, fraternal organizations and other societies awaits every new citizen who comes to Oregon with the honest purpose of achieving independence and making a home.

Many thousand families have come to Oregon during the past few years, and by following these simple precautions, have located happily and are prospering beyond their fondest expectations.

THE OPEN WAY.

By MARSHALL N. DANA, Secretary Oregon State Immigration Commission.

Oregon had never so much to offer the seeker for a home as now. The pioneers found in this broad state nothing comparable to the present opportunity for well doing and well being. The dangers of another day are forgotten. The work done is the heritage of today. Those who earnestly desire to make good by investing a reasonable amount of work and cash can nowhere do better than in Oregon.

In the yesterday of this state's development the first comers discovered millions of acres of rich land that had never been stirred by the plow. So great was the area and so limited the transportation that the immense amount of accomplishment since is but a small fraction of that which now opens out to be done.

All of modern invention and appliance is now provided for the settler in Oregon. An influx of settlement extending over many years cannot take up all the lands or materially decrease the business chances. Transportation has arrived. The wide Willamette Valley is being gridironed with electric suburban lines over its entire 100-mile length. An agricultural population six times as great as now can be prosperously supported there.

The Coast region has been reached by railroad lines and here are the forests of fir and the usual dairying regions.

Interior Oregon has been reached by two competing railroad lines at a cost of many millions of dollars and transportation is being increasingly furnished to a region of future homes as great as the entire state of Ohio.

Access to the home opportunity country by water is not being neglected. The millions spent for new rail lines are proportionately balanced by the expenditures of government, state and city, in harbor improvement, channel deepening, lock and canal construction, both on the Columbia and the Willamette rivers.

With ships from the seas and boats on the river, with rail lines increasingly covering the state and reaching both east and west, the market for the production of Oregon's approximately 34,000,000 acres of agricultural land is unlimited.

These are the **facts** of the opportunity in Oregon today. The chief chance is in settling upon and tilling the soil. Attention to method, and no greater expense of effort, money and time than is elsewhere necessary are the only requisites for unusual success in growing sheep, hogs, cattle, horses, fruit, grain, potatoes, and in dairying and fishing.

Nor will the newcomer be forgotten after he has come to Oregon and commenced the important business of cultivating the soil and making a home. It is increasingly a policy of the state through the agricultural college, the immigration commission and other agencies, aided by the development leagues, to carry on a program of demonstration education—sending to the farms persons who know conditions and production problems who can show how work should be done.

The Oregon invitation is: Come! Help till our soil and develop our resources. Make homes. Add productive strength to our citizenship. Participate in the rich rewards.

OREGON.

Geography, Climate and Soil.



GEOGRAPHICALLY the state is divided into two sections by the Cascade range of mountains. These sections are commonly known as Eastern Oregon and Western Oregon. The physical and climatic conditions of these divisions are entirely different and embrace all desirable elements of soil and climate under the sun, from the humid region along the Pacific Coast to the high and semi-arid Central Oregon section in Eastern Oregon. The state is oblong in form, being about 275 miles from North to South and 350 miles from East to West. Contains 96,699 square miles, including water area, and consists of fertile val-

leys, rolling hills, high tablelands, rivers, lakes and mountains. The rivers and lakes furnish an abundance of water for irrigation and other purposes, and the rivers an enormous wealth of latent water powers. The mountain slopes and foothills are covered with a dense growth of merchantable forest, approximating one-fifth of the standing timber of the United States. The mountain ranges not only mark the geographical and climatological lines of division but perform the highly important double function of serving as immense watersheds and Nature's storehouses for millions of tons of winter snows to supply the needed moisture for the broad and fertile valleys during the Summer months.

WESTERN OREGON.

THAT portion of the state, lying West of the Cascades comprises an approximate area of 35,000 square miles. It is composed of a series of wonderfully rich and productive valleys, in which are embodied all of the elements of soil and climate necessary to produce in abundance and to the highest state of perfection, any and all of the varieties of fruits and vegetation characteristic of a temperate zone, and in which may be found any desired altitude, from sea level to 5,000 feet, and higher, and annual precipitation from 20 inches in the Southern portion and 40 inches in the lower valley regions, to 133 inches, the extreme maximum, in the mountains along the coast. These valleys vary in extent and importance, the latter being measured by state of development and accessibility, and are separated by ranges of spurs of mountains. Western Oregon has been termed the "Land of Perpetual Green and Flowers," for the fields are green the year round, except during the season of harvest, in keeping with the laws of Nature; flowers bloom throughout the year and root crops remain in the ground during the winter months without harm. While the temperature occasionally registers above the 90-degree mark during the Summer months, the heat is not oppressive because of the low humidity and rapid evaporation; the nights are cool and a

sound and refreshing sleep is always assured. Climatological conditions are so different as between localities in this section that, in order to convey a more clear and succinct understanding, Western Oregon will be treated in subdivisions, each of which, while the climatic conditions blend to a certain extent, possesses distinctive features which can best be described separately. These sub-divisions are: The Coast Region, Willamette Valley, Umpqua Valley and Rogue River Valley. The chief features of distinction in climate are amount of precipitation, sunshine and length of growing season, highly important factors from an agricultural and commercial standpoint. The ocean on the West and the mountains in the interior greatly modify the climate—the ocean by tempering the heat and cold and the mountains by arresting and increasing the precipitation on the windward slopes and decreasing it on the leeward slopes. Only 10% of the annual rainfall occurs during June, July, August and September. The months of heaviest rainfall are either December or January, and of the least rainfall, July or August.

The Coast Region.

Consists of a strip along the Pacific Coast, 40 miles in width at the widest parts, and running the entire length of the state, and is composed of rolling

(Continued on Page 7)

OREGON'S COMMERCIAL ADVANTAGES.

In relation to interior America and the commerce of the world, Oregon's location on the Pacific Coast is as advantageous as is that of New York and Pennsylvania on the Atlantic Coast. The area of Oregon is greater than the combined areas of New York and Pennsylvania.

Oregon, 95,607 sq. miles

N. Y. and Pa., 92,486 "

There is more open country in Oregon, the soil is infinitely richer and the natural resources of timber, minerals, fisheries, etc., are far greater, so it is entirely reasonable to expect that Oregon will eventually support a greater population than the two great states of New York and Pennsylvania. The following comparison of present populations suggests the possibilities of future growth:

Population.

N.Y. & Pa. 16,778,725

Oregon, 672,765

Switzerland, a mountainous country without a seaport, supports 3,559,349 population in thrift and prosperity on an area of only 15,976 square miles, one-sixth of Oregon's area. Natural conditions are far more favorable in Oregon. If Oregon were settled as thickly as is Switzerland, the population would be 21,224,754. If as thickly settled as Belgium the population would be 61,570,908. These comparisons are not presented with the idea that so large a population is either desirable or likely, but to illustrate how immense Oregon is and how large a population could be supported in the state by intensive agriculture, manufactures and world commerce. The thinking man would rather locate where the possibilities for increase are great, especially in a salubrious climate, than remain in a thickly settled country under unfavorable climatic conditions.

LAND AREA AND POPULATION OF OREGON.

In Square Miles.

COUNTY.	Land Area.	Pop.	Pop. Per Sq. Mile.	COUNTY.	Land Area.	Pop.	Pop. Per Sq. Mile.
Baker.....	3,060	18,076	5.9	Lane.....	4,612	33,783	7.3
Benton.....	688	10,863	15.5	Lincoln.....	1,008	5,587	5.5
Clackamas.....	1,864	29,931	16.1	Linn.....	2,243	22,662	10.1
Clatsop.....	821	16,106	19.6	Malheur.....	9,883	8,601	0.9
Columbia.....	662	10,580	16.0	Marion.....	1,194	39,780	33.3
Coos.....	1,028	17,959	11.0	Morrow.....	2,025	4,357	2.2
Crook.....	7,778	9,315	1.2	Multnomah.....	451	226,261	501.7
Curry.....	1,498	2,044	1.4	Polk.....	709	13,469	19.0
Douglas.....	4,922	19,674	4.0	Sherman.....	836	4,242	5.1
Gilliam.....	1,201	3,701	3.1	Tillamook.....	1,125	6,266	6.6
Grant.....	4,520	5,607	1.2	Umatilla.....	3,173	20,309	6.4
Harney.....	9,933	4,059	0.4	Union.....	2,087	16,191	7.8
Hood River.....	543	8,016	14.8	Wallowa.....	3,145	8,364	2.7
Jackson.....	2,836	25,736	9.1	Wasco.....	2,343	16,336	7.0
Josephine.....	1,751	9,567	5.5	Washington.....	731	21,522	29.4
Klamath.....	5,999	8,554	1.4	Wheeler.....	1,704	2,484	1.5
Lake.....	7,920	4,658	0.6	Yamhill.....	714	18,235	25.6
Total Land Area.....	95,607						
Water Area.....	1,092						
Total—Population and Area.....	96,699	672,765					
Population per Square Mile.....			7.0				

WESTERN OREGON.

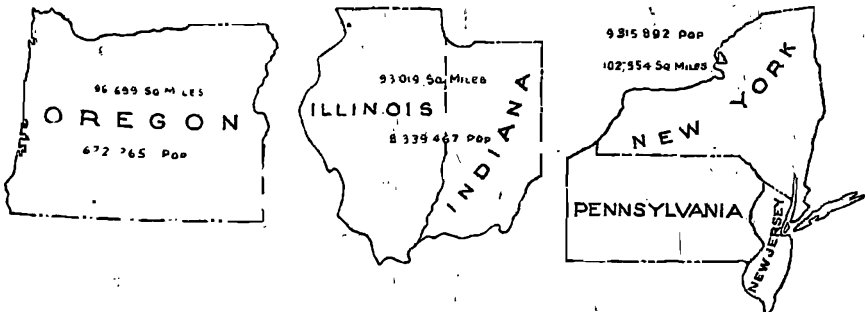
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Hills, small but fertile valleys, rich tidelands, sea beaches, high bluffs, rivers and mountain slopes. It is separated and distinguished from the other portions of Western Oregon by the Coast range of mountains, which parallels the coast from North to South, with an average elevation of 2,000 feet, and occasional peaks or ridges of 3,500 feet or more in height. The principal valleys of this region, which are traversed by perpetual streams that transect the mountain range at irregular intervals, are: The Nehalem, Young's river, Lewis and Clark, the former being the most extensive and embraces an approximate area of 312 square miles; Wilson, Trask and Tillamook, emptying into Tillamook Bay; Miami, Kilchis, Yaquina, Siletz, Alsea, Salmon and Big Elk in the North, and the Coquille (about 200 square miles in extent), Siuslaw, Lower Umpqua, Lower Rogue river, Illinois, Smith's river, Sixes river, Pistol river, Chetco river and Elk creek in the South. The total approximate area of the entire region is 7,280 square miles. Soils of the valleys and lowlands are composed of alluvial deposits and silt, deep and rich in humus and other essential elements, clay loams and sandy loams, and the uplands of red clay and sandy loams. Region is especially adapted and devoted to dairying industry; general farming is becoming extensive and fruit growing is successful in certain locations but in infant stages of development. The general character of this region is timbered, and the majority of the farms, especially upon the higher elevations, are composed of cut-over or logged-off lands which have been cleared for farming and are highly

productive of all kinds of agricultural and forage crops. Average maximum temperature for July throughout the region is 69 degrees and the average minimum for the same month is 51 degrees; average maximum for January is 48 degrees and the minimum average for the same month is 37 degrees. Annual rainfall varies from 133 inches at Glendora and 55 inches at Doraville, the heaviest rainfall in the mountains, to 92 inches at Port Orford, the heaviest nearest the coast, and 70 inches at Newport, the lightest. Snow is quite rare. The rainy season lasts from October until near the end of April and the number of rainy days is greater than anywhere else in the state. Length of growing season ranges between 256 days at Gardiner and 303 days at Port Orford. The prevailing winds are Northwesterly and in midsummer they blow with the regularity of trade winds.

Willamette Valley.

The North Central part of Western Oregon comprises a total area of about 11,200 square miles, and is the largest and most important valley in the state. It is about 60 miles in width by 150 miles in length and embraces a most fertile and productive area, with slightly variable conditions of climate, soil and other natural advantages to suit every requirement of agricultural and industrial activity. It is traversed by the Willamette river, which rises in the Calapooia mountains in Southern Lane County and flows North into the Columbia river, 10 miles below Portland. Numerous tributaries drain the slopes and foothills of the mountains on the East, West and South, all of which

Comparison of Total Area of Oregon, Including Water.

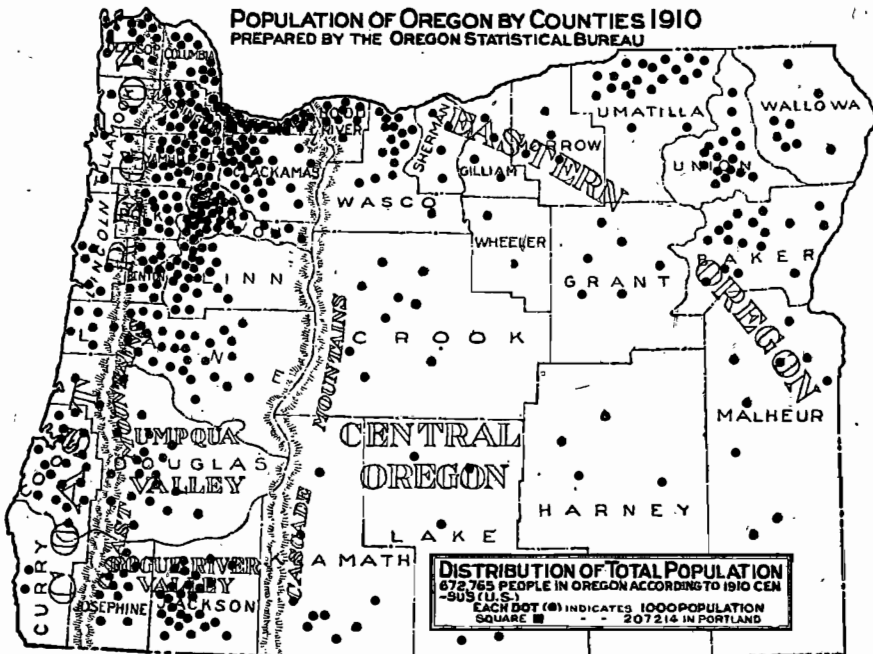
traverse small but rich subsidiary valleys which contribute to the wealth of the Willamette Valley proper. Chief among these are the Tualatin, Yamhill, Chehalem, La Creole, Luckiamute, Mary's, Long Tom, McKenzie, Mohawk, Santiam, Mill Creek, Abiqua, Pudding, Molalla, Clackamas and Sandy valleys. North and West are the rich Columbia and Willamette river bottom and tidelands, known as the "Scappoose country," Sauvie's Island and the valleys of Clatskanie river, Beaver and Minoc creeks. Alluvial deposits form the basic elements of the soils of the valley bottoms, supplemented and enriched by humus and other decayed vegetable and animal matter, the accumulations of centuries, the lasting and productive qualities of which many years of successive cropping have failed to exhaust or determine. Common descriptions vary from light gray, to dark and black, clayey and sandy loams, with clay and gravel subsoils, and vary in depth from a few inches to many feet. The soils of the hills and lower mountain slopes, which are covered by a heavy growth of timber, mostly oak, are reddish clay in character, which possess rare lasting

and productive qualities unexcelled anywhere. The general elevation of the valley, consisting of broad, open prairies, is between 100 and 2,000 feet above sea level. The average maximum temperature in July is 80 degrees, and the average minimum 54 degrees, while the average maximum for January is 45 degrees and the average minimum for the same month is 34 degrees. In the valley bottoms the average annual rainfall is 42 inches at Portland and 40 inches at Salem, there being a slight decrease in precipitation from North to South and a rapid increase with elevation on the mountain slopes. In the foothills of the Coast range the average annual rainfall is 52 inches and 70 inches in the Cascades at an elevation of 1,500 feet. The length of growing season in the lower valley ranges between 245 days in the North and 200 days in the South. The average number of rainy days per year are 133 days at Salem, in the heart of the valley, and 172 days at McKenzie's Bridge, well up on the slope of the Cascades. The amount of the snowfall varies, being light in the valley bottoms and increasing with elevation on the mountain slopes. The prevailing

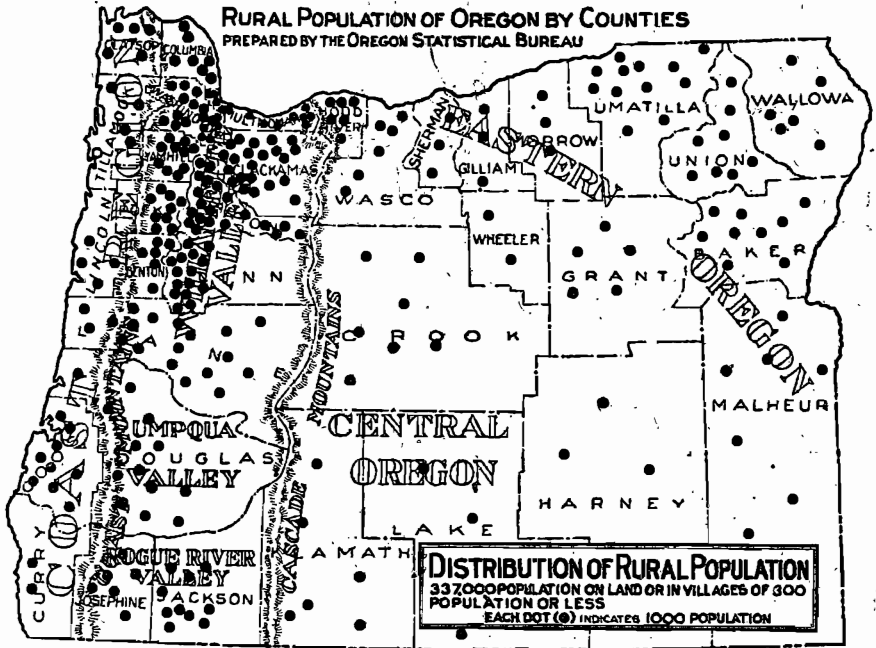
Total Population, 672,765 or 7 People to the Square Mile.

POPULATION OF OREGON BY COUNTIES 1910

PREPARED BY THE OREGON STATISTICAL BUREAU



AVERAGE RURAL POPULATION, 3.6 TO SQUARE MILE.



winds are Northwesterly in the valley and Southwesterly on both mountain slopes.

Rogue River Valley.

In the most Southerly portion of Western Oregon and lies between the Cascade range on the East, Umpqua range on the North, Coast range, broken, on the West, and Siskiyou range, which divides Oregon from California, on the South. It comprises an approximate area of 2,300 square miles and includes several smaller tributary valleys. The main artery of drainage is the Rogue river, which rises on the West slope of the Cascades and flows westward through the Coast mountains into the Pacific ocean. The lesser valleys, which bear the names of the streams which traverse them, are the Antelope, Applegate, Big and Little Buttes, Sam's Valley and others, all of which are narrow but fertile and are lined for many miles with farms and farm lands. The soils of the valleys are of alluvial, disintegrated lava and granite formations, black and deep, ranging in depth from 10 inches to several feet, rich in all of the essential chemical qualities for the production

of deciduous fruits, vegetables and all agricultural crops. The red soils of the hills, which are covered with a heavy growth of oak timber, are highly productive, and the decomposed granite soils are especially adapted to grape culture. The surface of the valley is level, gently rolling hills and mountain slopes; the altitudes range between 900 to 2,000 feet in Josephine and 1,100 to 4,000 feet in Jackson counties, with varying temperatures and decreasing precipitation accordingly. The average maximum temperature for July is 87 degrees, and the average minimum for the same month is 50 degrees; average maximum for January is 46 degrees and the average minimum is 30 degrees. Annual rainfall is 32 inches at Grants Pass, 28 inches at Medford, 22 inches at Central Point and 20 inches at Ashland. Snowfall averages vary from 4.8 inches at Grants Pass to 22.5 inches at Ashland, and the number of rainy days per year at Ashland is 103 and 106 at Grants Pass. Only 8% of the rainfall occurs in June, July, August and September, hence the dry season is longer and there is more sunshine than in the Willamette Valley or the coast

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CLASSIFICATION OF ALL LANDS IN OREGON BY COUNTIES.

(In Acres.)

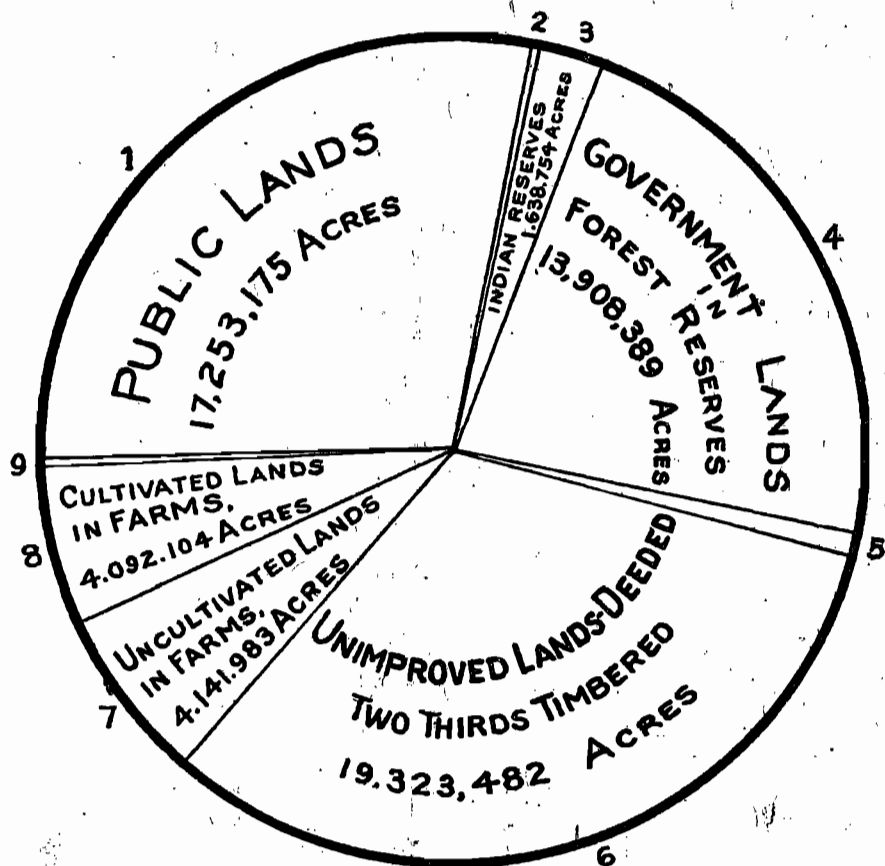
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OREGON ALMANAC.

COUNTY.	LANDS NOT DEEDED OR PATENTED.						LANDS IN PRIVATE OWNERSHIP.					Total Area Acres.
	*National Parks.	†Indian Reserves.	‡Forest Reserves.	§Public Lands.	State School Lands.	Total.	Cities and Towns.	Improved Lands. Cultivated.	Uncultiv'd.	Not Improved.	Total Deeded Lands.	
Baker.....			458,665	741,013	10,340	1,217,518	3,181	96,998	40,761	599,942	740,882	1,958,400
Benton.....			640	6,472	200	7,312	1,920	65,504	26,059	339,525	433,068	440,320
Clackamas.....			567,650	8,399		576,039	5,340	92,439	10,932	508,210	1,192,960	
Clatsop.....				6,259		6,259	3,450	5,359	7,371	501,001	519,181	525,440
Columbia.....				40		40	3,200	11,235	4,827	404,328	423,640	423,680
Cook.....			121,653	23,319	120	145,092	6,080	16,702	68,769	804,797	890,328	1,041,920
Crook.....		208,382	1,215,635	1,502,081	40,200	2,968,238	1,950	70,986	67,358	1,871,388	2,011,692	4,077,920
Curry.....			667,888	36,204	940	704,552	160	3,394	10,322	231,062	254,168	958,720
Douglas.....	7,680		933,400	41,532	905	983,517	3,780	93,400	23,715	2,046,658	2,168,563	3,150,080
Gilliam.....				105,880	3,520	109,400	1,520	242,432	390,342	24,846	659,240	768,640
Grant.....			1,447,649	466,415	21,840	1,935,904	1,740	33,172	19,873	902,111	956,896	2,892,800
Harney.....			436,797	4,309,873	145,280	4,890,880	550	345,946	591,371	523,993	1,466,170	6,357,120
Hood River.....			192,860	840		193,700	940	22,150	66,852	64,148	153,820	547,520
Jackson.....			464,817	53,436	400	518,653	4,740	103,511	163,933	1,004,203	1,296,367	1,815,040
Josephine.....			418,173	55,725	260	474,158	1,920	19,476	11,493	613,593	646,482	1,120,940
Klamath.....	153,880	951,231	1,029,584	882,193	9,220	3,005,903	720	88,789	87,875	656,068	833,452	3,339,360
Lake.....		97,945	1,163,800	2,581,450	94,240	3,907,435	840	171,273	230,277	759,170	1,161,366	5,088,900
Lane.....			1,386,107	20,023	120	1,406,255	4,880	117,993	41,164	1,381,418	1,545,425	2,951,680
Lincoln.....			124,143	57,502	360	182,005	820	6,508	8,732	447,257	483,115	645,120
Linn.....			421,508	19,037		440,545	4,120	189,068	46,975	754,822	994,973	1,435,520
Malheur.....			500	5,300,958	175,520	5,477,077	1,760	114,858	561,616	169,509	848,043	6,325,120
Marion.....			198,044	40		198,084	9,100	187,358	23,729	345,889	566,079	764,160
Morrow.....			118,207	80,240	1,960	200,407	1,920	253,731	630,268	209,684	1,095,593	1,296,000
Multnomah.....			25,755	2,390		28,115	34,740	36,001	50,281	139,623	200,525	288,640
Polk.....			11,520	451		11,971	2,880	137,162	123,205	178,542	441,789	453,760
Sherman.....				57,320	1,400	58,720	1,170	239,478	39,882	165,790	476,320	535,040
Tillamook.....			81,774	29,976	160	111,910	800	14,048	30,460	562,787	608,090	720,000
Umatilla.....	2,680	156,774	435,375	115,980	4,360	716,149	4,880	683,662	466,348	180,681	1,315,571	2,030,720
Union.....			489,885	58,960	5,120	553,965	4,167	160,645	161,733	455,170	781,715	1,335,680
Wallowa.....			1,128,816	172,000	3,320	1,304,136	1,680	73,767	22,232	610,935	708,664	2,012,800
Wasco.....		254,442	199,070	235,015	3,560	692,087	1,740	141,020	30,031	634,642	897,433	1,499,520
Washington.....				360		360	1,970	101,177	6,742	357,591	467,490	667,940
Wheeler.....			163,724	297,080	8,160	468,964	1,050	21,707	81,689	587,150	621,596	1,060,560
Yamhill.....			8,161	4,287		12,438	4,540	121,117	15,845	303,519	444,622	456,960
Total.....	164,040	1,638,754	13,908,389	17,253,175	541,005	33,505,523	125,548	4,092,104	4,141,983	19,323,482	27,683,117	61,188,480

See Notes to this Table on Page 11

OREGON'S LAND AREA; HOW DIVIDED



1. Public lands, open to entry, 17,253,175 acres.
 2. Area of incorporated cities and towns, 125,548 acres.
 3. Indian reserves, 1,638,754 acres.
 4. Government lands in forest reserves, 13,908,389 acres.
 5. State school lands, 541,005 acres.
 6. Unimproved lands, deeded; two-thirds timbered, 19,323,482 acres.
 7. Uncultivated lands in farms, 4,141,983 acres.
 8. Cultivated lands in farms, 4,092,104 acres.
 9. National park area, 184,040 acres.
- Total land area, 61,188,480 acres.

(Notes to table on page 10.)

*Only one National Park in Oregon, the Crater Lake National Park, all of which, except one-third of a township in Douglas County, is situated in Klamath County. There is a Game and Bird Preserve in Umatilla County, approximating 2,880 acres.

†Area within Indian Reserves obtained from records of Department of the Interior, April 8, 1912,

and includes 422,937 acres allotted in severalty to Indians. Net area public lands within reserves 1,215,817 acres. Includes land and water area.

‡For detailed classification of Forest Reserves by reserves and counties, and timber contents within reserves, see tabulated statement pages 50, 53 and 54.

§For classification of Public Lands, as to character, etc., see page 15.

WESTERN OREGON.

Continued from page 9.

counties. The growing season is from 150 days to 200 days, and averages 170 to 180 days.

Umpqua Valley.

Is contained wholly within Douglas County and is enclosed by the Cascade, Coast and Calapooia mountains. It embraces an aggregate area of about 3,000 square miles of excellent fruit and agricultural lands, and like the other large valleys of Western Oregon, many rich but lesser valleys, which extend back into the creek canyons and conform to the mountain slopes, contribute to the wealth and expanse of the valley proper. Among the subsidiary valleys is the Sutherlin Valley, with an area of about 25 square miles and drained by the Calapooia river, which also furnishes water for irrigation purposes and power facilities. The soils of the valley, bottoms are alluvial in character, containing all of the essential elements that are found in other Western Oregon valleys, and are adapted to almost every phase

of agricultural and horticultural development. The soils of the foothills and mountain slopes, which are covered with a heavy growth of timber, mostly oak, are of a red clayish loam in character and highly productive. Temperature and precipitation, the former increasing and the latter decreasing, are governed by the altitude which graduates from 300 feet in the bottom of the valley to 5,000 feet at the summit of the Cascades. The average maximum temperature for July is 80 degrees and the average minimum for the same month is 52 degrees; the average maximum for January is 47 degrees and the average minimum for the same month is 35 degrees. Annual precipitation ranges between 20 inches at Sutherlin, in the lower valley, where irrigation is practiced to a great extent, and 40 inches or more on the mountain slopes. Average annual snowfall two inches; length of growing season is from 152 days at Drain to 198 days at Roseburg. Prevailing wind direction North west; average wind velocity four miles per hour at Roseburg.

EASTERN OREGON.

THAT portion of the state lying East of the Cascade mountains—aggregating an area of about 60,000 square miles and consisting of vast level and rolling plains (formerly lake beds) which contain many lakes (some of which have no surface outlet), high tablelands, valleys, rivers and mountains—commonly known as Central Oregon or the Plateau region, and the valley, rolling and mountainous section, with a gradual slope toward and tributary to the Columbia and Snake rivers, is known as the Eastern Oregon region. There is a wide dissimilarity between the climatic and other conditions of this section of the state and those of Western Oregon; the climate of the latter is of a marine and semi-marine character, while that of Eastern Oregon is of a continental nature. The chief characteristics of the Eastern Oregon climate are a scanty rainfall, wide range in temperatures, low absolute humidity, rapid evaporation and an abundance of sunshine. While the amount of precipitation does not vary to a great extent in this section, there is a vast difference in the range of

temperatures and other conditions which have to do with agriculture, etc., and, for that reason, a more comprehensive description can be given by treating these sub-divisions separately.

Central Oregon Region.

The great level plains and rolling uplands of this section comprise about one-half the area of Eastern Oregon and contain some wonderfully productive valleys (formerly lake beds) and tablelands. Annual precipitation throughout this section is light and is not sufficient to mature crops without irrigation or dry-farming methods, the latter being applied very successfully and extensively. The soils of the immense tillable areas are composed of disintegrated lava, underlaid with porous lava and basalt and supplemented by sedimentary soils carrying all of the necessary chemical elements in abundance and highly productive. The uplands are of the decomposed basaltic and lava types of soils. The Deschutes Valley is the principal valley in the North of this region. It embraces an area of over 8,000 square miles, is triangular in shape and extends

from Northern Klamath northward into Central Wasco County. The Deschutes river, which, with its two principal tributaries, the Crooked and Metolius rivers, drains this great valley or basin, flows North into the Columbia river. All of that region to the South and South-east of the Deschutes country is composed of high and rolling tablelands and valleys, rivers and lakes, and is known as the Great Basin of Oregon. It embraces an aggregate tillable area of about 16,000 square miles, including the Malheur Valley, traversed and drained by the Malheur and Owyhee rivers; Harney Valley, drained by the Silvies river and the Donner-and-Blitzen rivers and their numerous small tributaries, which empty into Malheur and Harney lakes; Warner and Goose Lake Valleys, in Lake County, which contain Warner, Summer, Silver, Goose, Christmas and Albert lakes, all alkaline in character, except Silver lake, but valuable for irrigation and power purposes, and the Klamath Basin, which covers an area of about 1,500 square miles and is drained and supplied with water by the Sprague, Williamson, Lost, Link, Lescardo and

Klamath rivers, and the Upper, Lower and Little Klamath lakes. Irrigation is in a high state of development in this region and many large projects are in operation and in course of construction. Decomposed lava, granite and basalt form the basic elements of the soil of this section, strengthened by rich sandy, volcanic ash and silt loams which are very fertile. Annual rainfall in the Central Oregon region varies from nine to 13 inches, with an average of 12 inches, in the Northern and Eastern parts, to 17 and 22 inches in the higher altitudes of the Southern portion. Snowfall averages about 38 inches over the district with the least, 19 inches, in the Upper Deschutes Valley and the greatest, 40 inches or more, in the high Southern altitudes. The average maximum temperature for the district for July is 86 degrees, and the average minimum for the same month is 44 degrees; the average maximum for January is 40 degrees and the average minimum is 17 degrees. Length of growing season varies between 62 days at Burns; 122 and 130 days, respectively, for Paisley and Warm Springs. There are some local-

OREGON COUNTIES COMPARED WITH EASTERN STATES.

County.	Land Area Square Miles.	State.	Land Area Square Miles.
Harney.....	9,933	Maryland.....	9,941
Malheur.....	9,883	Vermont.....	9,124
Lake.....	7,920	Massachusetts.....	8,039
Crook.....	7,778	New Jersey.....	7,514
Klamath.....	5,999	Connecticut.....	4,820
Douglas.....	4,922	Delaware.....	1,965

Uncultivated but tillable lands in Oregon Counties as compared with cultivated lands in states, as reported in United States Census Bulletin:

	Acres.		Acres.
Harney County.....	3,299,514	Maryland.....	3,354,767
Malheur County.....	2,633,487	Maine.....	2,360,657
Crook County.....	1,428,218	New Jersey.....	1,803,336
Lake County.....	1,423,836	Vermont.....	1,633,965
Douglas County.....	1,091,699	Utah.....	1,368,211

The tillable farm land in Oregon, 19,452,129 acres, that has never felt the touch of the plow, is equal in area to all the cultivated acreage in Ohio (19,227,969 acres).

Unappropriated lands in Oregon, open to homestead entry, 17,253,195 acres, is equal in area to one-half the state of Indiana, and larger than all improved lands in Indiana (16,931,252 acres).

Oregon lands under cultivation:

4,092,104 acres

Tillable lands not under cultivation:

19,452,129 acres

Arable land in Oregon, not yet under cultivation (19,452,129 acres), is nearly twice the area of the entire acreage planted to wheat in all Canada (10,374,000 acres.—U. S. Department of Agriculture, Year Book 1911).

The total area of Oregon, 61,188,480 acres, is greater than all the acreage planted to wheat in the entire United States, 49,543,000 acres. (U. S. Department of Agriculture, Year Book 1911.)

EASTERN OREGON.

(Continued from page 13.)

ities in which frosts are probable any month in the year, but they seldom occur during June, July and August. Number of rainy days during the year is fewer than 100 throughout the region, which permits of an abundance of sunshine for the rapid maturity of crops. The small mountain ranges in this region, some of the peaks of which rise to elevations of 5,000 feet or more above the level of the valleys, and the East slope of the Cascades are covered with a heavy growth of merchantable timber.

Eastern Oregon Region.

East and North of the great plateau region the general trend of the streams is northward and eastward and they empty into the Columbia and Snake rivers, respectively. This region is mountainous in places but is principally rolling hills, high tablelands and narrow valleys, as a rule. They are all highly productive and are all drained by the streams whose names they bear. The streams of this region furnish an abundance of water for irrigation and power purposes and are utilized to a great extent for the former, while the power possibilities have scarcely been touched. The principal valleys tributary to the Columbia river are the Columbia River Valley, approximating an area of 2,000 square miles; Hood River Valley, about 82 square miles; Three Mile, Eight Mile, Mill Creek and Dufur valleys, in Wasco County, aggregating about 800 square miles; Love's Valley, Sherman County, about 300 square miles, and the Walla Walla, Hermiston and Umatilla valleys, in Umatilla County, aggregating about 900 square miles. In the interior are the Powder River, Eagle, Pine, Sumpter, Grande Ronde, Wallowa, Imnaha and John Day valleys. The largest of these are the Powder River Valley, including its principal auxiliaries; the Eagle, Pine and Sumpter valleys, which approximate an area of 800 square miles; Grande Ronde, Union County, 600 square miles; Wallowa and Imnaha valleys, Wallowa County, 300 square miles; John Day Valley, Grant County, about 400 square

miles. The soils throughout this region are of basaltic origin; they are a deep rich, mixed sand, gravel and clay loams; volcanic ash and silt are found in the valleys and along the streams, and all are wonderfully fertile and lasting. The soil of the foothills and on the slopes of the Cascades is of a reddish alluvial clay especially adapted to fruit culture. Because the amount of precipitation is deficient in some parts of this region—annual rainfall varies between nine and 18 inches, increasing with altitude from the Columbia river. Hood River has 36 inches—irrigation is practiced to secure the best results in agriculture. But crops are produced successfully in some localities without irrigation, while in others, dry-farming methods yield profitable returns. Temperature and precipitation in this region are very largely governed by topography and local environment. Annual snowfall ranges, according to elevation, between 2.4 inches, the least, at Hermiston, to 58 inches, the greatest, at Baker, and 35 inches at The Dalles. Altitudes increase inland from the Columbia river, ranging from 100 to 240 feet along the Columbia, to over 4,000 feet in the Blue Mountain region, the most prominent range of mountains in the section. The abundance of sunshine in this section is of incalculable benefit in promoting early maturity of fruits and vegetables, and a secondary maximum of precipitation in May and June in the Blue Mountain district is of great importance to the early growth of vegetation. The average maximum temperature for July in this region is 83 degrees, and the average minimum for the same month is 50 degrees; average maximum temperature for January is 36.5 degrees and the average minimum is 22 degrees. The length of growing season ranges between 140 days at Canyon City, 200 days at Hermiston and 209 days at The Dalles. Foothills and mountain slopes covered with dense growth of merchantable timber, the heaviest growths being in the Northeast portion.

NOTE—For detailed descriptions of Counties and Communities, see pages 72 to 138.

Note to Table on Page 15.

A township diagram, showing only entered lands in any township, may be procured by sending \$1.00 to the Register or Receiver of the Land Office for that district. The diagram required should be specified by township and range number. All vacant

unappropriated public lands, non-mineral and non-saline in character, are subject to entry under the homestead laws.

For table showing distribution of public lands according to land districts and also according to counties see page 16.

PUBLIC LANDS IN OREGON.

Government Lands, Unappropriated and Unreserved, Classified as to Character (In Acres).

COUNTY.	Total.	Farming Lands (Tillable).	Grazing Lands (Partly Tillable).	Mountainous, Timbered, Mineral, etc.	Surveyed.	Unsurveyed.	Carey Act Segregations (Not Deeded).
Baker.....	741,013	89,793	199,634	451,586	672,479	25,500	43,034
Benton.....	6,472		3,231	3,241	6,032	440	
Clackamas.....	8,389	839	3,356	4,194	8,389		
Clatsop.....	6,259		1,252	5,007	1,339	4,920	
Columbia.....	40		40		40		
Coos.....	23,819		4,764	19,055	19,899	6,920	
Crook.....	1,502,081	282,793	494,724	724,564	1,212,073	60,020	229,948
Curry.....	86,224			86,224	34,984	1,240	
Douglas.....	41,532	8,306		33,226	27,072	14,460	
Gilliam.....	105,880	31,764		74,116	104,120	1,760	
Grant.....	469,415	69,962	197,321	199,132	463,375	3,040	
Harney.....	4,309,873	2,506,605	1,607,604	195,664	2,984,551	1,325,322	
Hood River.....	840		840		840		
Jackson.....	53,436	5,344	10,667	37,405	50,556	2,880	
Josephine.....	55,725	27,862		27,863	30,337	25,388	
Klamath.....	802,193	258,478	430,798	172,919	723,641	123,473	15,079
Lake.....	2,581,450	774,435	774,435	1,032,580	1,122,483	448,930	12,037
Lane.....	20,028	2,003		18,025	20,028		
Lincoln.....	57,502		12,412	45,090	15,986	41,516	
Linn.....	19,037		5,029	14,008	2,037	17,000	
Malheur.....	5,300,958	1,955,335	3,180,575	165,048	3,419,918	1,881,040	
Marion.....	40			40			
Morrow.....	80,240	12,224	23,696	44,320	80,240		
Multnomah.....	2,360			2,360	2,360		
Polk.....	451		60	361	451		
Sherman.....	57,320	17,196		40,124	56,680	640	
Tillamook.....	29,976		5,995	23,981	29,976		
Umatilla.....	115,960	5,798	40,586	69,676	115,960		
Union.....	58,960	5,896	8,844	44,220	58,960		
Wallowa.....	172,000	8,600	77,400	86,000	158,560	13,440	
Wasco.....	235,015	35,252	35,252	164,511	235,015		
Washington.....	860		72	288	860		
Wheeler.....	297,080	60,070	63,340	173,670	297,080		
Yamhill.....	4,287		867	3,430	4,287		
Total.....	17,263,175	6,158,555	7,182,832	3,911,808	12,957,148	3,993,929	300,098

See Note to this Table on Page 14.

PUBLIC LANDS IN OREGON.

BY LAND DISTRICTS AND COUNTIES.

Unappropriated and Unreserved Government Lands, Classified as to Character.

Land District and County.	Total Acres.	Farming Lands.	Grazing Lands.	Mountainous: Timbered: Mineral, Etc.
BURNS DISTRICT—				
Crook.....	88,075		70,460	17,615
Grant.....	183,250	27,487	91,625	64,138
Harney.....	8,913,279	2,347,987	1,389,648	195,664
Wheeler.....	13,080	3,270	6,540	3,270
Total.....	4,197,684	2,378,724	1,538,273	280,687
LA GRANDE DISTRICT—				
Baker.....	427,180	42,718	42,718	341,744
Grant.....	194,680	29,202	68,138	97,340
Morrow.....	59,240	5,924	23,696	29,620
Umatilla.....	115,960	5,798	40,586	69,576
Union.....	58,960	5,896	8,844	44,220
Wallowa.....	172,000	8,900	77,400	86,000
Total.....	1,028,020	98,138	261,382	668,500
LAKEVIEW DISTRICT—				
Crook.....	471,466	94,289	330,012	47,165
Klamath.....	861,593	258,478	430,796	172,319
Lake.....	2,581,450	774,435	774,435	1,032,580
Total.....	3,914,509	1,127,202	1,535,243	1,252,064
PORTLAND DISTRICT—				
Benton.....	2,421		2,421	
Clackamas.....	8,389	839	3,356	4,194
Clatsop.....	6,259		1,252	5,007
Columbia.....	40		40	
Lincoln.....	58,362		11,272	45,090
Linn.....	18,760		4,752	14,008
Marion.....	40			40
Multnomah.....	2,360			2,360
Polk.....	451		60	361
Tillamook.....	29,976		5,995	23,981
Washington.....	360		72	288
Yamhill.....	4,287		857	3,430
Total.....	129,705	839	30,107	98,759
ROSEBURG DISTRICT—				
Benton.....	4,051		810	3,241
Coos.....	23,819		4,764	19,055
Curry.....	36,224			36,224
Douglas.....	41,532	8,306		33,226
Jackson.....	53,436	5,344	10,687	37,405
Josephine.....	55,725	27,862		27,863
Klamath.....	600			600
Lane.....	20,028	2,003		18,025
Lincoln.....	1,140		1,140	
Linn.....	277		277	
Total.....	236,832	43,515	17,678	175,639
THE DALLES DISTRICT—				
Crook.....	942,520	188,504	94,252	659,764
Gilliam.....	105,880	31,764		74,116
Grant.....	43,920	6,588	21,980	15,372
Hood River.....	840		840	
Morrow.....	21,000	6,300		14,700
Sherman.....	57,320	17,196		40,124
Wasco.....	235,015	35,252	35,252	164,511
Wheeler.....	284,000	56,800	56,800	170,400
Total.....	1,690,495	342,404	209,104	1,138,987
VALE DISTRICT—				
Baker.....	318,833	47,075	156,918	109,842
Grant.....	44,565	6,685	15,598	22,282
Harney.....	396,594	158,638	237,956	
Malheur.....	5,300,958	1,955,335	3,180,575	165,048
Total.....	6,055,950	2,167,733	3,591,045	297,172
Grand Totals.....	17,253,175	6,158,555	7,182,832	3,911,808

See Note to this Table on page 17.

HOW TO ACQUIRE PUBLIC LANDS IN OREGON.

THERE is a total of 17,253,195 acres of government lands in the state of Oregon which are subject to entry under the Homestead Act. Of this amount 6,158,555 acres, or nearly 30%, are classified as farming lands; 7,182,832 acres are classified as grazing lands, and 3,911,808 acres are classified as mountainous, timbered, mineral, etc. Homestead entry may be made upon any of this land under the method of procedure prescribed by the United States Homestead Act, which requires actual residence of three years, with five months' leave of absence privilege each year, or the privilege of commuting after a residence of 14 months on the land and payment of \$1.25 per acre. The law also provides that a certain percentage of the acreage shall be placed under actual cultivation annually and sown or seeded to crops of an agricultural character. The amount required to be improved and placed under cultivation is not less than one-eighth of the total area of the claim during the third year and until final proof is made. The Enlarged Homestead Act, which prescribes the method of entry upon public lands classified as semi-arid and non-irrigable, permits homestead entry upon 320 acres under the same privileges and provisions as prescribed under the Three-Year Homestead Act, with the exception of the commutation privilege, which is denied. There are hundreds of thousands of acres of land in Eastern and Central Oregon subject to entry under the Enlarged Homestead Act, which, under scientific dry-farming methods, are capable of producing good crops of all kinds of grains and the hardier varieties of vegetables, and of yielding good returns upon the investment. The five months' leave of absence privilege is regarded as a great boon to the homestead entrymen, because it enables him, during the period when his homestead cannot be made to

produce a living, to seek remunerative employment elsewhere and earn means of subsistence for his family while improving his land. It will also enable him to remove from his claim to more comfortable and congenial surroundings during the Winter season. From the date of filing the entryman is allowed six months in which to arrange his business affairs and take up actual residence upon his homestead, but his required term of residence does not begin to run until he has established actual residence thereupon.

Land in Forest Reserves.

There are also 13,613,181 acres of government land in National Forest Reserves, some of which is tillable and subject to entry under the Homestead Act, after it has been cleared of its forest growth, and is valuable for agricultural purposes. Before land within the forest reserves will be permitted of entry under the Homestead Act until the timber is removed, it must be clearly proven that the land is more valuable for agricultural than forestry purposes, but most of this land is mountainous, rough and rugged, and the percentage of land suitable to agriculture is comparatively small.

A township diagram, showing only entered lands in any township, may be procured by sending \$1.00 to the Registrar or Receiver of the Land Office for the district in which the land is located. The diagram required should be specified by township and range number. In many counties only a few acres are reported as vacant. Neither the General Land Office nor the local land officers may furnish information as to the location of such tracts, but such information may be obtained from the records from the local land offices, which are open to inspection by prospective homeseekers or their agents. All surveyed vacant unappropriated public lands are open to entry.

Note to Table on Page 16.

All vacant unappropriated lands, non-mineral and non-saline in character, are subject to entry under the homestead laws. A Township diagram, showing only entered lands in any Township, can be procured by sending \$1 to the Registrar or Receiver of the Land Office for that District. The diagram required should be specified by Township and Range number.

While the figures that are given in the tables may

not be absolutely correct, owing to liability of error in a work of such magnitude and to the necessity of making estimates of unsurveyed lands, it is believed they afford a pretty close approximation of the actual areas. In many counties only a few acres are reported as vacant. Neither the General Land Office nor the local land officers may furnish information as to the location of such tracts, but such information may be obtained by prospective homeseekers or their agents.

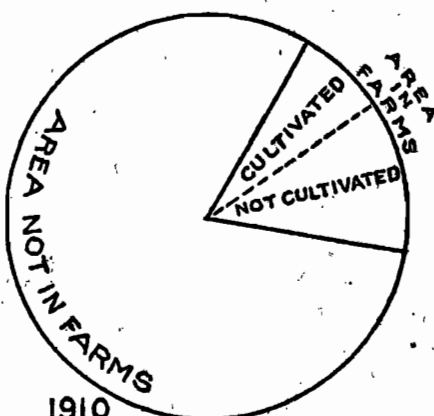
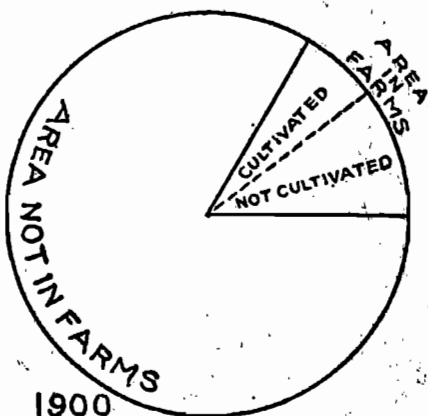
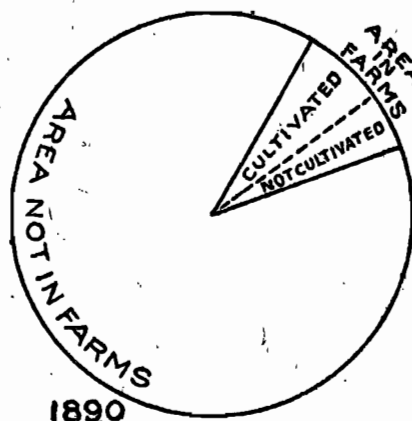
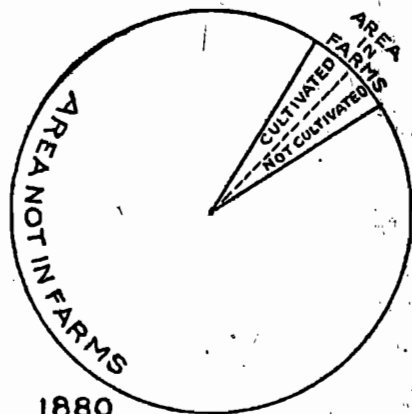
TILLABLE LANDS IN OREGON.

Tabulation of Acreage Susceptible of Cultivation, in Contrast With Average Acreage Now Cultivated. No Forest Reserve or Indian Reserve Lands Included.

COUNTY.	PUBLIC LANDS.			PRIVATELY OWNED.		Total Tillable Acreage now Uncultivated.	Acreage now Under Cultivation.
	Government Open to Entry.	Carey Act Irrigable.	School Lands.	In Farms.	Unfenced, Partly Timber'd		
Baker.....	89,793	43,034	15,872	32,809	251,982	432,300	96,908
Benton.....			100	20,847	137,906	158,913	65,504
Clackamas.....	839			8,746	180,741	180,326	92,439
Clatsop.....				5,897	300,800	306,197	5,359
Columbia.....				3,862	187,898	191,760	11,285
Coos.....			96	55,015	287,339	342,450	16,702
Crook.....	282,793	257,111	32,160	63,886	802,268	1,428,218	70,986
Curry.....			752	15,618	120,328	145,698	3,394
Douglas.....	8,398		724	18,072	1,063,097	1,081,689	93,400
Gilliam.....	31,794		2,816	312,274	7,484	354,338	242,432
Grant.....	69,982		17,472	15,698	405,663	508,995	33,172
Harney.....	2,509,605		116,224	473,257	203,423	3,299,514	845,946
Hood River.....				53,482	34,244	87,726	22,180
Jackson.....	5,344		320	147,146	859,261	709,071	102,511
Josephine.....	27,502		208	9,194	884,078	401,342	19,476
Klamath.....	253,478	15,079	7,376	70,300	346,520	698,053	88,789
Lake.....	774,436	12,037	75,392	184,221	877,751	1,429,836	171,278
Lane.....	2,003		96	32,931	789,329	824,350	117,963
Lincoln.....			288	6,986	246,677	253,951	6,506
Linn.....				37,580	848,447	384,027	189,088
Malheur.....	1,955,335		140,416	440,293	88,443	2,833,487	114,858
Marion.....				18,983	163,767	182,750	187,358
Morrow.....	12,224		1,568	504,206	62,905	580,903	263,731
Multnomah.....				40,209	59,856	100,065	36,001
Polk.....				93,584	98,563	197,127	137,182
Sherman.....	17,196		1,120	31,905	49,737	90,958	269,478
Tillamook.....			128	24,369	318,836	243,333	14,043
Umatilla.....	5,798	240	3,488	373,078	54,132	466,736	663,692
Union.....	5,896		4,096	129,386	211,561	350,929	160,645
Wallowa.....	8,600		2,656	17,825	318,280	247,362	73,707
Wasco.....	35,232		2,648	24,025	227,593	290,018	141,020
Washington.....				5,394	187,377	182,771	101,177
Wheeler.....	60,070		6,528	25,351	245,145	337,094	21,707
Yamhill.....				12,277	113,556	125,833	121,117
Totals.....	6,158,555	327,501	432,804	3,312,587	9,219,682	19,452,129	4,092,104

See summary of this Table on Page 19

OREGON'S FARMING GROWTH IN 40 YEARS AND OREGON'S UNDEVELOPED POSSIBILITIES



See opposite page for comparison of Oregon's Cultivated and TILLABLE Uncultivated Acreage.

SUMMARY OF TABLE ON PAGE 12.

6,158,555 acres of farm land open to homestead entry. In addition, there are 7,182,832 acres of government land suitable for grazing or containing timber, including some mineral and mountainous lands. There are also 15,711,183 acres of government land in forest reserves, Indian reserves and national parks, much of it being tillable, but not included in this tabulation.

327,501 acres of farm land segregated for Carey Act irrigation projects and subject to entry.

432,804 acres of state school lands, suitable for farming. Same can be acquired by purchase.

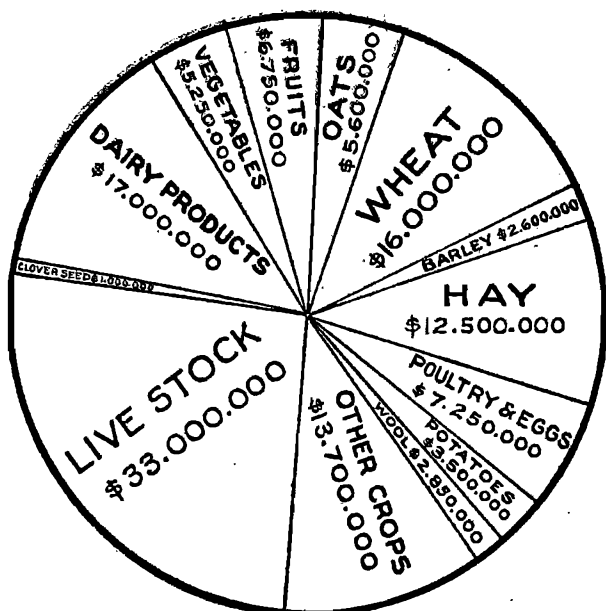
3,313,587 acres of tillable land now in farms but not under cultivation. Much is in summer fallow, much is in wild hay, and much is used for pasture in livestock ranches. This total does not include woodland or hill land suitable only for pasture or otherwise unadapted for tillage.

9,219,682 acres of tillable land, nearly all covered with a valuable heavy timbered growth, though a considerable portion is logged-off and needs only clearing and plowing to bring it under cultivation. These timbered and cut-over lands, among the most fertile and productive of soils in the world, are suitable for fruit growing, gardening, dairying and all kinds of intensive farming. Cut-over lands may be acquired at a low price. Although the labor of clearing is great, thousands of acres are being subdued annually by new settlers, who are very rapidly bringing them under the highest state of cultivation.

19,432,129 acres, total of tillable lands not now under cultivation, in contrast with 4,092,104 acres of land now under cultivation, indicating the present opportunities and future possibilities for agricultural development under the favorable conditions of soil and climate in Oregon.

OREGON'S HARVEST FOR 1912

\$127.000 000



See Detailed Tabulation, in Article by President W. J. Kerr, page 16.

OREGON'S SOIL SUPERIORITY.

Fertility of soil of Oregon as compared with the celebrated rich soils of the Mississippi Valley States, is shown by the following figures taken from the U. S. census:

Average Yield of Wheat Per Acre for 10 Years, 1901-1910.

(Prepared by Oregon Statistical Bureau.)

Oregon	21.9 bushels	
Indiana,	15.2 "	
Kansas,	13.7 "	
Minnesota,	13.6 "	
Missouri,	13.5 "	
South Dakota,	12.6 "	
North Dakota,	12.1 "	

Average Yield of Barley Per Acre for 10 Years, 1901-1910.

Oregon,	35 bushels	
Nebraska,	9 "	
South Dakota,	5.9 "	
Kansas,	5 "	

AGRICULTURE IN OREGON.

By W. J. KERR, President Oregon Agricultural College.

OREGON is a land of agricultural opportunity. It is estimated that there are over 23,000,000 acres of agricultural land in this state. This land in elevation ranges from sea level to 5,000 feet, thus giving the settler an opportunity for a wide choice in selection.

The state is geologically divided by a mountain range into two grand physical divisions, namely, Eastern and Western Oregon. Eastern Oregon is known for its wheat and livestock production, and Western Oregon for its general farming and dairying. Then there are sub-divisions known as Southern Oregon and the Coast region. The former is characterized mainly for its high class fruits and alfalfa, and the latter for its excellent dairying opportunities.

In Eastern Oregon some of the best wheat land on the American continent is found. It is also a great alfalfa and livestock producing section. The livestock is produced under the most healthful environment. Two general systems of farming are followed in this section—dry farming and irrigation. There are 686,129 acres of land farmed under irrigation, which not only give opportunity for a wide range of production, but also practically a sure production.

Western Oregon is ideal for the small farm, soil and climate both being hospitable for all classes of farm crops. It is a section where a total crop failure is unknown, and where seed time and harvest are practically sure.

Farm Demonstration Work.

Oregon is now making liberal appropriations for agricultural education and investigations. There are six experimental stations maintained by the state,

comprising in the aggregate about 1,500 acres of land. These stations are geographically distributed so as to meet practically every condition of agriculture found in the state. In addition two demonstration farms are maintained by business interests and much agricultural co-operative work among farmers is conducted. The central station issues bulletins and reports from time to time, dealing with all phases of agriculture, and these are sent to the 23,000 addresses which are on the permanent mailing list.

The agricultural development of the state is making good progress, as indicated by the estimates of crop production for 1912, given below:

Agricultural Crops, 1912.

	Amount.	Value.
Wheat.....	21,092,274 bu.	\$15,819,205
Oats.....	14,744,046 bu.	5,602,737
Barley.....	4,439,374 bu.	2,663,624
Clover Seed..	125,000 bu.	1,050,000
Potatoes....	8,751,685 bu.	3,500,874
Hay.....	1,374,201 tons	12,367,809
Fruit.....		6,750,000
Vegetables.....		5,250,000
*Hops.....	85,000 bales	3,750,000
Miscellaneous Products.....		9,500,000
		<hr/> \$66,254,049

*An early estimate. Latest estimate, 115,000 bales; value \$4,140,000.

Other Agricultural Productions.

	Amount.	Value.
Dairy Products.....		\$ 16,750,000
Poultry and Eggs.....		7,250,000
Wool.....	17,500,000 lbs.	2,850,000
Mohair.....	1,250,000 lbs.	375,000
Honey.....		135,000
Livestock.....		33,150,000
		<hr/> \$ 60,510,000
		66,254,049
		<hr/> \$126,764,049

AVERAGE PRODUCTION, YIELD AND PRICE OF STAPLE CROPS IN OREGON AND MINNESOTA.*

(Figures from United States Year Books—1901-1910, inclusive.)

Name of Crop.	State.	10-Year Average Acreage.	10-Year Average Production.	10-Year Average Yield Acreage	Highest Yearly Acreage.	Lowest Yearly Acreage.	Highest Yearly Production.	Lowest Yearly Production.	Highest Yearly Yield.	Lowest Yearly Yield.	Highest Yearly Price	Lowest Yearly Price	10-Year Average Price. Bushel.
Wheat.....	Oregon.....	740,003	14,996,172	20.3	814,472	651,000	17,158,065	12,438,827	23.4	18.2	.93	.54	.75
	Minnesota.....	5,828,140	75,140,470	13.5	6,209,506	5,110,412	94,080,000	55,801,591	16.8	10.9	.96	.60	.78
Oats.....	Oregon.....	285,660	9,029,753	31.6	302,000	279,000	10,886,000	6,510,550	37.8	23.1	.52	.34	.44
	Minnesota.....	2,351,116	74,448,226	31.8	2,736,000	2,047,789	90,288,000	59,004,000	39.2	22.0	.43	.24	.31
Barley.....	Oregon.....	61,654	1,908,305	32.4	64,000	39,862	2,556,260	1,753,111	42.0	28.7	.66	.49	.57
	Minnesota.....	1,128,894	28,589,501	25.5	1,339,000	840,334	32,560,000	21,680,617	28.6	21.0	.67	.32	.44
Rye.....	Oregon.....	9,920	160,281	15.6	15,000	9,000	226,000	147,748	18.0	13.4	1.00	.66	.85
	Minnesota.....	97,063	1,825,122	18.7	120,000	87,572	2,280,000	1,593,810	22.8	17.0	.66	.43	.55
Corn.....	Oregon.....	17,799	445,959	26.1	18,000	16,000	522,000	347,589	30.7	20.8	.80	.57	.69
	Minnesota.....	1,548,224	45,993,369	29.3	1,724,000	1,361,120	58,812,000	33,828,559	34.8	22.8	.55	.33	.42
Hay (by ton).....	Oregon.....	394,806	821,358	2.08	439,000	343,537	922,000	700,615	2.18	2.0	12.10	7.10	9.39
	Minnesota.....	892,035	1,457,630	1.64	927,000	841,716	1,622,000	908,000	1.84	1.0	9.10	5.36	6.23
Potatoes.....	Oregon.....	40,123	4,523,827	108.7	46,000	35,367	7,360,000	3,261,543	160.0	87.0	.70	.50	.60
	Minnesota.....	143,973	12,632,213	85.9	166,000	131,782	18,400,000	8,950,960	115.0	61.0	.67	.29	.47

*This table shows the relative place which the individual crops occupy in the two states. The highest and lowest average, single year yield and production are shown in Columns 4-12, inclusive. (Prepared by the Oregon Statistical Bureau.)

FENCE POSTS COST LITTLE.

Timber is so abundant that fence posts cost little. Even in Central Oregon, where there are vast open prairies, the cost of fence posts is low, as Juniper trees grow in abundance on neighboring hills. They are small, light, soft, easily cut and easily handled, making ideal fence posts.

CHEAP LUMBER FOR HOMES.

As sawmills are scattered all over the state of Oregon, lumber is cheap. The lumber bill for neat, four-room farm cottages is from \$100 to \$150. Lumber suitable for sheds and stables may be bought at the mills for \$6.00 to \$10.00 per thousand feet.

OREGON'S YIELD OF WHEAT, OATS AND BARLEY COMPARED.

(U. S. Government Crop Reporter, Aug., Sept., Oct., 1911.)

STATE.	YIELD IN BUSHELS PER ACRE.					
	Wheat.		Oats.		Barley.	
	Average		Average		Average	
	1911	10-Year.	1911	10-Year.	1911	10-Year.
Ohio.....	16.0	16.0	32.1	33.2	27.2	24.7
Indiana.....	14.7	15.2	30.0	29.2	28.5	25.7
Illinois.....	16.0	15.7	29.5	31.2	28.0	28.3
Michigan.....	18.0	15.5	29.1	31.3	24.0	25.2
Wisconsin.....	17.5	18.3	29.8	33.1	25.5	28.6
Minnesota.....	*10.1	*13.6	22.8	32.1	18.7	25.5
Iowa.....	20.0	18.9	25.0	29.9	21.9	25.9
Missouri.....	15.7	18.5	15.6	24.0	20.0	22.5
North Dakota.....	* 8.5	*12.1	25.5	29.4	20.0	22.8
South Dakota.....	* 4.0	*12.6	7.9	31.7	5.9	25.7
Nebraska.....	13.8	18.7	13.9	27.0	9.0	24.1
Kansas.....	10.8	13.7	15.0	24.5	5.0	19.5
United States.....	14.5	14.6	24.8	29.7	20.7	25.9
OREGON.....	22.2	21.9	34.7	31.6	35.0	32.4

*Spring Wheat.

AGRICULTURAL RANK OF COUNTIES IN OREGON.

(Figures from Census, 1910.)

COUNTY.	Area.	Population.	Wheat.	Oats.	Barley.	Rye.	Potatoes.	Hops.	Hay (ton).	Alfalfa.	Clover.
Baker.....	11	11	14	9	4	5	11	11	1	2	16
Benton.....	31	17	15	10	27	17	18	8	22	26	10
Clackamas.....	17	4	31	4	24	16	1	5	14	29	1
Clatsop.....	27	15	29	24	31	29	23	.....	31	32	17
Columbia.....	32	18	27	20	30	24	13	.....	29	30	12
Coos.....	20	12	28	23	25	28	8	.....	19	31	8
Crook.....	4	20	16	14	11	2	10	.....	8	5	21
Curry.....	21	34	33	27	29	0	39	.....	32	28	22
Douglas.....	6	9	18	11	17	23	12	12	18	17	23
Gilliam.....	22	32	4	30	6	19	34	.....	30	15	.....
Grant.....	8	26	22	17	19	7	27	.....	17	11	24
Harney.....	1	31	25	19	10	9	28	.....	6	12	.....
Hood River.....	34	24	32	38	.....	.....	20	.....	34	18	13
Jackson.....	12	5	20	26	16	18	21	13	13	4	14
Josephine.....	18	19	26	29	28	.....	24	10	28	13	18
Klamath.....	5	22	17	15	7	3	17	.....	4	6	27
Lake.....	3	28	24	31	9	11	29	.....	5	16	.....
Lane.....	7	3	13	8	18	25	5	6	12	24	9
Lincoln.....	25	27	30	25	32	26	22	.....	27	.....	11
Linn.....	14	6	7	2	14	20	6	7	10	20	5
Malheur.....	2	21	21	18	13	6	25	.....	2	1	25
Marion.....	23	2	6	1	12	10	2	1	11	25	3
Morrow.....	16	29	8	32	15	13	33	.....	23	8	.....
Multnomah.....	33	1	19	13	26	22	4	.....	24	19	6
Polk.....	29	16	11	6	23	27	14	2	20	25	7
Sherman.....	26	30	2	21	8	.....	31	.....	33	21	.....
Tillamook.....	24	25	34	34	.....	.....	26	.....	25	.....	20
Union.....	15	14	3	7	2	4	7	.....	15	9	19
Umatilla.....	9	8	1	22	1	15	10	.....	3	3	26
Wallowa.....	10	23	9	12	3	1	16	.....	9	7	15
Wasco.....	13	13	5	16	5	21	15	9	21	14	28
Washington.....	28	7	12	3	20	14	3	3	7	7	2
Wheeler.....	19	33	23	28	21	8	32	.....	26	10	.....
Yamhill.....	30	10	10	5	23	12	9	4	16	22	4

AGRICULTURAL STATISTICS OF OREGON.

COUNTY.	Average Land Price. (1)	Tax Rate. ‡	Miles of Navigable River.	Miles of Railroad.	Bonded Indebted- ness. (2)
Baker.....	\$36.68	\$0.0105	35	189.88	
*Benton.....	39.48	.013	59	50.65	
Clackamas.....	78.29	.0175	27	64.04	
Clatsop.....	35.09	.0284	36	52.17	
Columbia.....	35.90	.0103	60	63.93	
Coos.....	33.41	.0175		29.51	
*Crook.....	17.54	.0135		37.40	
Curry.....	16.23	.012			
Douglas.....	26.17	.0135		151.10	
Gilliam.....	18.86	.008	30	90.05	
Grant.....	10.00	.020			
Harney.....	12.35	.013			
Hood River.....	340.03	.0108	24	42.05	
Jackson.....	90.60	.011		88.65	
Josephine.....	41.58	.018		37.15	
*Klamath.....	20.18	.013		23.01	
Lake.....	14.67	.01175		18.00	
Lane.....	39.34	.013	26	110.89	
Lincoln.....	20.35	.011		42.45	
*Linn.....	45.34	.013	55	130.17	
Malheur.....	35.32	.0124		49.85	
Marion.....	73.40	.0147	58	140.13	
Morrow.....	12.36	.007	30	64.95	
Multnomah.....	228.61	.0101	68	349.84	
Polk.....	54.08	.0156	30	87.60	
Sherman.....	25.14	.0075	12	117.55	
Tillamook.....	65.87	.0174		30.00	
Umatilla.....	31.26	.008	24	243.30	
Union.....	33.49	.014	30	89.75	
Wallowa.....	20.20	.011	10	46.40	
Wasco.....	22.19	.016	30	187.35	
Washington.....	97.16	.0204	19	111.30	
Wheeler.....	9.12	.015			
*Yamhill.....	69.89	.013	46	58.75	
	\$35.23‡	\$0.01173‡	707‡	2,797.87‡	

*Benton, Crook, Klamath, Linn and Yamhill Counties have not reported their respective tax levies to the Tax Commission to date, hence the rate given is based upon estimates of general taxes. Accurate with these exceptions.

(1)—Data secured from report of U. S. Census Bureau, Thirteenth U. S. Census.

(2)—Very few counties in state have any bonded indebtedness. The state has no bonded indebtedness.

†Of Marion County's total mileage reported 12.91 miles are in street railway, and of that of Multnomah County, 79.33 miles.

‡Number of mills tax levied for general expenses of government—State, County and General School and Roads.

§Average for State.

¶From report of State Engineer (1911) on Mileage navigable streams. Reports of Railroad Companies to Railroad Commission for year 1911.

FACTS REGARDING OREGON'S RESOURCES.

(From report of Oregon Conservation Commission, 1912.)

Oregon streams are capable of supplying water to irrigate fully 4,000,000 acres of land.

Of the above fully 2,000,000 acres can be irrigated at a cost of \$20.00 to \$40.00 per acre, and the land now worth \$10.00 to \$30.00 per acre would be worth from \$100.00 to \$500.00 per acre, as well as supporting from six to ten times its present population.

Of the total area (686,129 acres) of irrigated land in Oregon, only 3.2% has received water through the United States Reclamation Service, 3.6% through

the Carey Act, 11.3% through commercial enterprises, and most of the balance has come about through individual or partnership enterprises.

Oregon streams now unused are capable of producing 3,300,000 electrical horsepower. Steam engines would consume 36,000,000 tons of coal annually to produce the amount of power that is now being allowed to go to waste in Oregon's streams.

The total amount of power used in New York State at the present time does not exceed 1,000,000 horsepower.

AGRICULTURAL STATISTICS OF OREGON.

(Figures from U. S. Census, 1910.)

All Farms—Number and Average Acreage of; Value and Average Value Farm Property; Increase in Value 1900-1910, and Average Value of Land Per Acre.

COUNTY.	Number of Farms.	Average Acres Per Farm.	Value Farm Property.	Per Cent Increase 1900-10.	Average Value All Property (Per Farm).	Average Value Land Per Acre.
Baker.....	1,304	228.3	\$ 15,232,080.00	•	\$11,881.00	\$36.68
Benton.....	1,008	214.5	11,950,336.00	182.8	10,884.00	39.48
Clackamas.....	3,646	82.6	29,725,765.00	221.3	8,153.00	78.29
Clatsop.....	369	145.9	2,898,077.00	23.4	7,285.00	35.09
Columbia.....	813	112.4	4,666,278.00	104.0	5,740.00	35.90
Coos.....	1,128	179.2	8,829,700.00	176.5	7,828.00	33.41
Crook.....	1,355	421.8	14,134,843.00	182.7	10,432.00	17.54
Curry.....	292	385.7	2,345,576.00	60.4	8,033.00	16.23
Douglas.....	2,124	271.9	19,170,380.00	171.0	9,026.00	26.17
Gilliam.....	432	1,005.3	10,721,357.00	300.4	24,818.00	18.86
Grant.....	773	575.9	7,554,412.00	154.5	9,902.00	10.00
Harney.....	443	1,269.1	11,679,664.00	213.2	26,365.00	12.35
Hood River.....	744	51.1	14,408,138.00	•	19,366.00	340.03
Jackson.....	1,714	173.4	30,617,669.00	475.3	17,983.00	90.60
Josephine.....	855	142.5	6,301,459.00	314.3	7,370.00	41.58
Klamath.....	926	490.6	12,053,776.00	504.8	13,017.00	20.18
Lake.....	712	564.0	9,031,775.00	164.3	12,685.00	14.67
Lane.....	2,826	171.7	23,947,624.00	182.6	8,474.00	39.34
Lincoln.....	981	164.7	4,038,764.00	355.0	4,203.00	20.35
Linn.....	2,751	168.1	27,047,815.00	151.4	9,832.00	45.34
Malheur.....	801	287.4	12,795,304.00	137.1	15,974.00	35.22
Marion.....	3,490	113.0	36,256,354.00	170.8	10,389.00	73.40
Morrow.....	614	1,097.7	10,962,640.00	194.3	17,854.00	12.36
Multnomah.....	1,478	58.4	23,227,688.00	175.8	15,716.00	228.61
Polk.....	1,557	167.2	17,602,029.00	159.7	11,305.00	54.08
Sherman.....	466	799.4	11,490,534.00	219.1	24,593.00	25.14
Tillamook.....	651	145.3	7,721,789.00	268.8	11,861.00	65.87
Umatilla.....	2,005	823.8	39,876,434.00	209.5	19,888.00	31.26
Union.....	1,309	802.3	16,999,077.00	•	12,986.00	33.49
Wallowa.....	1,058	835.3	11,319,248.00	307.9	10,699.00	20.20
Wasco.....	1,331	408.5	15,689,186.00	•	11,772.00	22.19
Washington.....	2,871	63.7	28,816,033.00	305.1	10,037.00	97.16
Wheeler.....	387	1,073.8	6,875,825.00	181.4	15,183.00	9.12
Yamhill.....	2,218	123.7	23,416,123.00	184.9	10,557.00	69.39
The State.....	45,502	256.8	\$528,243,782.00	205.8	\$11,009.00	\$35.23

*Change of boundary. Hood River County was organized from a part of Wasco County in 1908; part of Union County was annexed to Baker County in 1902.

†In 1900, 484,039 acres of the Warm Springs Indian Reservation in Crook County, were counted as one farm; they are not so figured in the census of 1910. Thus the statistics for Crook County and for the state as a whole for 1910 are not entirely comparable with those for 1900. The apparent decrease of 24.2 acres in the average size of farms during the decade is due largely to this fact. The actual decrease, omitting the Indian reservation figures, should be 10.7 acres.

NO WIND STORMS.

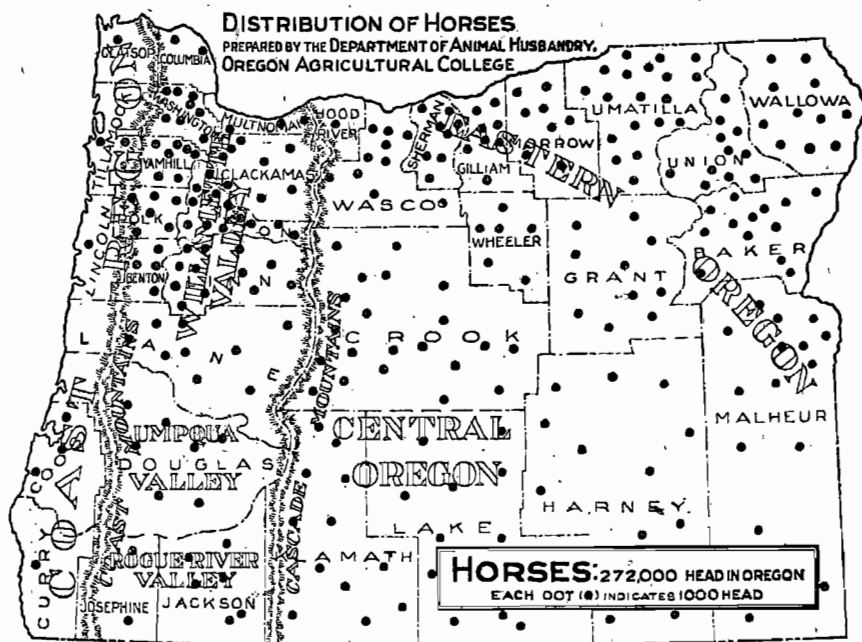
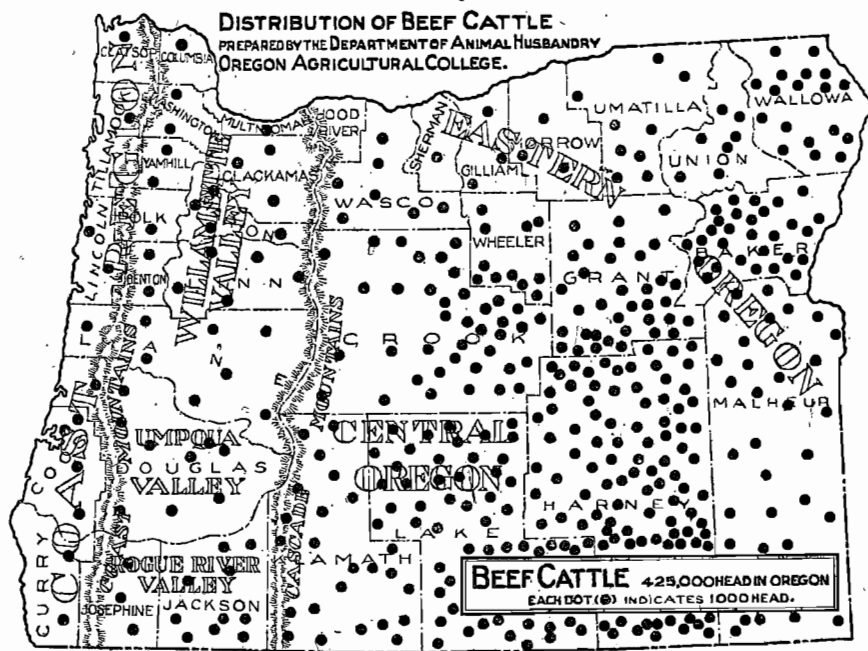
Indicative of the mild and equable climate of Oregon are the report and maps of the U. S. Weather Bureau. The average velocity of wind for 1911 was only 4.6 miles per hour at Roseburg, Oregon, the lowest average velocity reported from any station in the United States.

A comparison of the U. S. weather bureau reports on the average velocity of the wind at points east and west is as follows:

Station.	Miles per Hour
Roseburg, Oregon.....	4.6
Portland, Oregon.....	6.3

LaGrande, Oregon.....	7.2
Walla Walla, Wash. (7 miles from Oregon line).....	6.5
San Francisco, Cal.....	20.2
Bismarck, N. D.....	12.0
Duluth, Minn.....	14.0
Detroit, Mich.....	12.0
Boston, Mass.....	10.0
Oklahoma City.....	12.0
Chicago, Ill.....	10.0
Cleveland, Ohio.....	12.0
Buffalo, N. Y.....	12.0

Cyclones, blizzards and destructive windstorms are unknown in Oregon.



LIVESTOCK IN OREGON.

By DR. JAMES WITTHYCOMBE, Director U. S. Experiment Station,
Oregon Agricultural College.

The agriculture of Oregon is characterized by its high class farm livestock. Conditions are phenomenally favorable for the production of superior specimens of all classes of domestic animals. The horses of the state are noted for their individual excellence. In Eastern Oregon they are characterized by their great power of endurance and for their sound feet and limbs. The Western Oregon horse is equally noted for his splendid physical development. Some of the finest types of draft horses are produced here. In fact, draft horses grown in the Willamette Valley have outclassed in the show ring some of the best horses brought from England, Scotland, Belgium and France. The cause of this is not difficult to determine, when we consider the climate and range of crop production.

Cattle, sheep and hogs also find a most hospitable home in this state. It is not uncommon to find unusual weights for age. This is due to an abundance of nutritious succulent vegetation. The mutton breeds of sheep do remarkably well in Western Oregon, which has a climate and soil very similar to the best sheep districts of England.

Hogs of the very best quality are produced. They are mainly grown on alfalfa, clover, rape, etc., and finished for the market on wheat or barley, thus furnishing a very high class packing product.

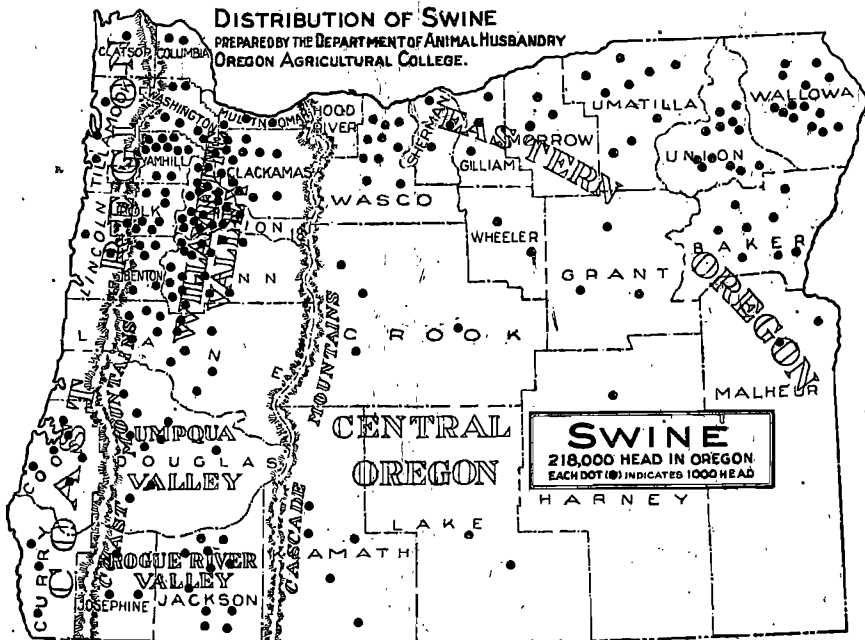
Livestock in Oregon are produced under two general conditions, viz., range and farm. In Eastern Oregon cattle, sheep and horses are produced largely under range conditions, while in Western Oregon they are grown under strictly farm conditions. The livestock industry in Oregon is rapidly assuming large proportions, as indicated by the estimates given of the number and value for 1912, which are as follows:

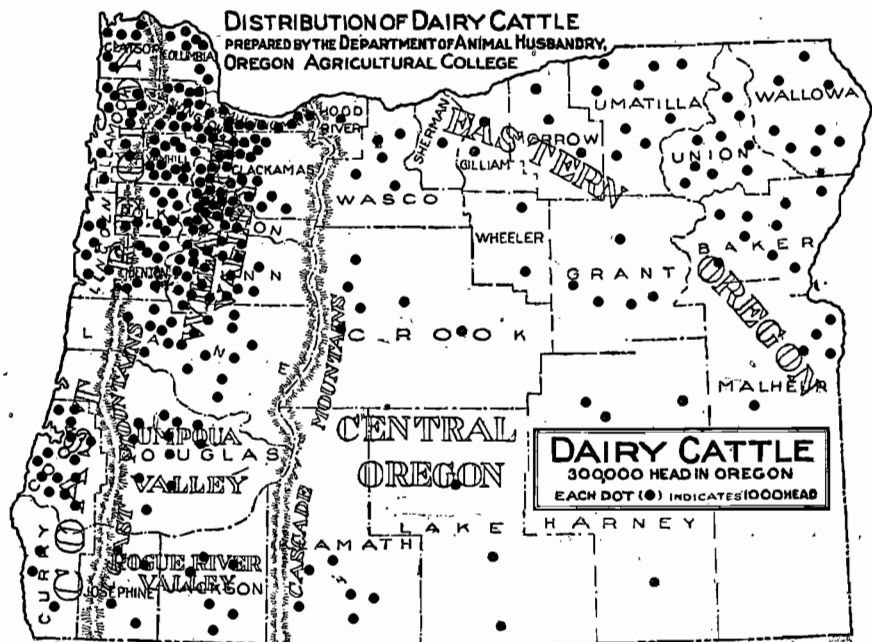
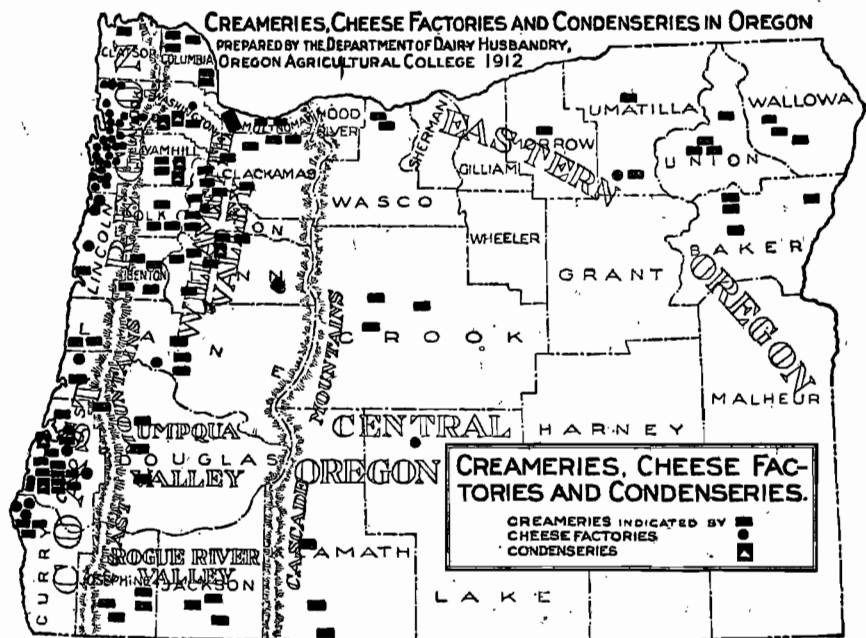
	Numbers.	Value.
Cattle.....	594,000	\$19,790,000
Dairy Cows.....	192,937	9,646,850
Horses.....	295,061	36,882,625
Mules.....	9,460	1,192,500
Sheep.....	2,052,855	9,237,847
Goats.....	254,100	1,016,400
Swine.....	466,560	4,879,720

NOTE.—Owing to the high prices of cattle and the heavy shipments of the last few years, the leading packing houses and stock authorities admit that, this Fall, there are only from 250,000 to 300,000 beef cattle in Oregon. This does not include calves. The 1911 assessment roll shows 880,968 head of cattle, beef and dairy.

DISTRIBUTION OF SWINE

PREPARED BY THE DEPARTMENT OF ANIMAL HUSBANDRY
OREGON AGRICULTURAL COLLEGE.





DAIRY INDUSTRY OF OREGON.

By PROF. F. L. KENT, Department of Dairy Husbandry, Oregon Agricultural College.

The 1910 census report gives the population of Oregon as 672,765, and the number of dairy cows as 172,550, or practically one cow for every four inhabitants. This ratio is even lower at the present time because the human population has increased more rapidly than the "cow" population. Comparing cows and population in some of the best known dairy states we find the following:

State.	Population.	No. Cows.	Pop. per Cow.
Wisconsin...	2,333,860	1,473,505	1.6
Minnesota...	2,075,708	1,085,388	2.0
Iowa.....	2,224,771	1,406,792	1.6

It will be observed that the number of cows in proportion to population is about two and one-third times greater in the three states referred to than in the state of Oregon. This condition of affairs would seem to indicate that there need be no fear of dairy over-production in Oregon in the very near future. Further, the census figures show that the state of Washington on the North has 1,141,900 people and 186,233 cows, or one cow to about every six people, and California, our Southern neighbor, has 2,377,549 people and 467,332 dairy cows, or practically one cow for every five people. With Oregon alone importing annually nearly 100 carloads of dairy products it does not appear that there can be any question as to the demand for the local product on the Pacific Coast.

The Oregon market for dairy products is one of the highest in the United States. Butter prices in Portland range from 3 to 6 cents higher than butter prices in Chicago, New York and other Eastern markets. The Portland price is also usually somewhat in advance of

the San Francisco market. The state is well supplied with creameries, cheese factories and condensing establishments, so that the milk producer has little trouble in finding a ready sale for his product. Practically all milk and cream sold to factories of the various classes is sold on a butter-fat basis. Cheese factories and condensing establishments are able to pay a higher price for the fat than the creameries are, but there is a question in the minds of most milk producers as to whether the higher price compensates for the loss of the skim milk for feeding purposes. Prices paid for butter fat by one of the largest creameries in Western Oregon are shown in the following table:

Butter Fat Prices.

Month.	1909.	1910.	1911.
January.....	\$0.37	\$0.40	\$0.40
February.....	.34½	.40	.35½
March.....	.38	.38	.32
April.....	.28	.32½	.27½
May.....	.26½	.28	.24
June.....	.26½	.29	.23½
July.....	.28½	.30½	.26
August.....	.31½	.34½	.27
September.....	.35½	.36	.30
October.....	.36	.37	.32
November.....	.36	.37½	.35½
December.....	.40	.40	*.36
Average.....	.33	.35½	.30½

*Prices for 1912 (up to November 1st) have averaged considerably higher than during 1911.

The sale of surplus stock is an important source of income for the Oregon dairy farmer at the present time. The farmer in the Eastern portion of the

(Continued on Page 31)

HIGH PRICES FOR BUTTER.

Compare prices received by Oregon farmers with prices received by farmers in other dairy states. (U. S. Department of Agriculture, Year Book 1911.)

State.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Oregon.....	38	35	34	34	30	28	26	28	31	31	32	34
Illinois.....	27	22	21	22	21	19	20	22	23	23	25	27
Nebraska.....	25	19	17	17	16	16	16	18	19	20	23	25
New York.....	32	29	26	26	24	24	24	26	28	28	31	33
Iowa.....	27	22	21	21	20	19	19	22	23	24	25	28
Ohio.....	28	21	21	21	21	18	18	20	22	23	24	27
Average in U. S....	28	24	23	23	21	20	20	22	23	24	25	27

Cost of production is less in Oregon, owing to mild climate and abundance of green feed.

(Continued from page 29)

state, being unable to get sufficient stock in the Western portion to supply the needs of a rapidly developing dairy section, are sending representatives into Wisconsin, Illinois and Iowa to secure foundation stock. Such Oregon dairymen as have stock for sale are receiving most satisfactory prices.

The statement is sometimes made that the higher prices of feed stuffs in Oregon in a large measure offsets the gain due to the higher price at which dairy products are sold, when comparison is made with Middle West conditions. While it is true that some of the concentrated feed stuffs are higher, a lower value should be assigned to hay,

roots, and other coarse fodder, and the mild climate, particularly in the Western portion of the state, permits of a longer growing season—in fact, the growing of certain crops, kale, for instance, throughout the Winter. The importance of dairying in connection with fruit growing is just beginning to be realized. Particularly is this true in the case of the small fruits. On most soils suited to small fruit production, fertilization soon becomes necessary, and stable manure is well suited to this use. One prominent small fruit grower says that the fertilizer produced by his cows fully pays for the feed and care of the animals, so that the value of the dairy product may be regarded as all profit.

OPPORTUNITIES FOR DAIRYING IN OREGON.

While the dairying industry of Oregon is already one of its most important industries and yields a substantial revenue annually, it may be said that it is still in its infancy. When the peculiarly ideal conditions of soil and climate found in Oregon are taken into consideration, particularly in that part of the state lying West of the Cascade mountains, its future greatness is unquestioned.

The statements of the remarkable possibilities for the dairy industry of Oregon may seem overdrawn to those not acquainted with conditions here, but they have been verified by some of the highest authorities of the leading dairying countries—England, Germany, Holland, Denmark and Switzerland. They have given it as their unbiased opinions, that within the confines of the Willamette Valley and the Pacific Coast regions of Oregon there are greater possibilities for the dairying industry than are offered in any other section of the country or in any foreign land.

For low rates of sustenance of dairy stock, computed upon the head basis; in productivity of soil, and in ideal climatic conditions, which permit of the cheap housing of the animals during the "Winter" season and provide green feed the year round, the Western Oregon country may justly be termed the "Dairy Heaven of the World." In the irrigated sections of Central and Eastern Oregon, the conditions are also first class for the development of the dairy industry, and it is only a question of a short time when the vast semi-arid region East of the

Cascades will be an important factor in the dairy industry.

The truth of these statements is borne out by the scientific and practical tests that have been made. "Adelaide of Beechlands," a registered Jersey, the property of W. M. Ladd, of Portland, in competition with other cows of the finest dairy breeds of the world, at the conclusion of a test on November 24, 1908, won the world's championship with a record of a net return, over feed cost, of \$267.98 for a period of one year. Her nearest competitor, an Illinois product, earned for the same period, \$205.15. The difference in favor of the Oregon cow as against the Middle Western cow, is the much greater when it is understood that the cost of concentrated feeds—bran, shorts, and oil cake meal—was \$62.83 per year per head greater in Oregon at that time than it was in Illinois.

This greater cost of concentrates is more than offset by the mild and equable climate of Oregon, particularly in the Coast region and the Willamette Valley. It permits of almost perpetual green pasturage for the stock. The absence of severe wind storms and other elemental disturbances also make unnecessary the construction of expensive storm shelters for the tender-skinned and highly sensitive dairy cow. Foremost among the most favored breeds of dairy cattle in Oregon are the Jersey, Guernsey, Holstein and Ayrshire, in the order mentioned.

The conditions of soil and climate favor the production of abundant crops of grains, hay and the root vegetables, in

varieties which provide a supply of green feeds throughout the year. The crop of most importance to the dairy industry, however, both from the standpoint of economy as well as milk and butter-fat producing qualities, is the "thousand-headed-kale." It is naturally adapted to Western Oregon conditions, and provides an excellent green, succulent and nutritious food for the dairy cow the year round. The yield is 25 tons and higher to the acre. With an abundance of kale in the field the Western Oregon farmer is independent of the silo.

While not indispensable, the silo is of great value, if the herd be large. For filling the silo, corn is used, with vetch or clover as substitutes. All of the roots do well, especially in the bottom lands of the Coast counties, where they make unusual growth. They include turnips, rutabagas, beets and mangels, and are of value as a supplemental food. Of the concentrates, bran, shorts and oats are fed, although the cow will do with rather less grain than in the East. In the spring the herd is turned into pasture—either of native grass, or, preferably, clover.

POULTRY INDUSTRY OF OREGON.

By PROFESSOR JAMES DRYDEN, Department of Poultry Husbandry,
Oregon Agricultural College.

No one need fear embarking in the business of raising poultry in Oregon. There will always be a good market for poultry and eggs in the coast cities. The coast cities are growing faster than cities in the interior and there will always be a larger proportion of consumers to total population in the coast states than in the middle states, where the great bulk of the people are producers. The prices of poultry products in Oregon are about on the same level as those of New York and Boston. On this date (October 18, 1912) eggs are retailing in Portland at 50 cents a dozen. The lowest price during the year was about 25 cents in Portland for fresh eggs.

During the year 1911 over 200 carloads of eggs and a considerable quantity of poultry were shipped into Oregon from the Middle West states. The value of poultry and eggs produced in Oregon this year amounts to about \$7,250,000.

That amount could easily be doubled without seriously, if at all, affecting the prices, because there are markets to the north and south of Oregon that would take any surplus supply. The Willamette Valley is now shipping considerable quantities of eggs to Seattle and the North, and this trade is bound to grow.

The prices of poultry foods are low in Oregon. Wheat is now selling in different sections at from 60 to 80 cents per bushel, and oats at from 35 to 40 cents. The poultry districts of California are drawing upon the great wheat fields of Eastern Oregon for their feed. Oregon could manufacture that wheat into eggs just as well as California. This state should be, and no doubt in a few years will be, the great poultry producing section of the coast. The markets are good, the climate is favorable and foods are cheap.

HIGH PRICES FOR EGGS.

Compare the prices received for eggs by Oregon farmers with prices received by farmers in other poultry states. (U. S. Department of Agriculture, Year Book 1911).

State.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Oregon.....	42	36	27	23	21	22	22	25	28	28	32	40
Nebraska.....	26	49	14	13	12	12	11	12	14	16	20	26
Illinois.....	29	21	15	14	14	14	13	14	15	18	22	28
Iowa.....	26	21	14	13	14	13	12	12	14	17	20	25
Virginia.....	29	19	16	15	15	15	15	16	18	20	23	27
Texas.....	25	20	14	13	12	12	12	12	14	17	18	22
Average in U. S.	30	22	17	15	15	15	14	16	17	20	24	29

Cost of production in Western Oregon is about the same as in Southern states, as the climate is mild; in Eastern Oregon the cost of production is less, owing to almost perpetual sunshine and dry, mild climate,

If anything were needed to prove that conditions are favorable in Oregon to the poultry industry it would be found in the egg records that have been made by laying fowls at the Oregon Experiment

Station at Corvallis. During 1912, egg records were secured that exceeded those made in any other state, in the Union so far as authentic records are concerned.

BEE CULTURE IN OREGON.

By PROFESSOR H. F. WILSON, Department of Entomology,
Oregon Agricultural College.

Bee culture in Oregon is in its infancy, yet it adds each year several hundred thousand dollars to the total produced by the agricultural industries of the state. For the money invested there is probably no agricultural pursuit which will bring greater returns than does bee keeping, when carried on in a scientific manner.

In sections where alfalfa is grown in great abundance bee keepers find little trouble in securing large crops of honey; especially is this true in sections east of the Cascade mountains and in the Rogue River Valley. There is not very much honey produced in the Willamette

Valley and along the coast on account of the great lack of nectar producing plants. However, along the hills of the Coast range, there is a flower known as the Fire Weed, which, when found growing over large areas, offers ideal conditions for the honey producer, and the honey secured is superior to that secured from all other sources.

During the season of 1911 17 carloads of honey were shipped from Ontario, and in 1912 this amount will probably be increased to 20 or 25 cars.

The sage, which is the great honey plant of California, produces practically no honey in Oregon.

SHEEP AND WOOL.

Ranking well up among the important industries of Oregon, and one that has flourished for a number of years is the sheep and wool industry, in which Oregon ranked seventh among the states of the Union in point of number of sheep of shearing age, April 1, 1911; tied for first place with Wyoming in average weight of fleece (8½ pounds); second in point of shrinkage, and seventh in total amount of wool produced, washed and unwashed, in 1911. In point of quality, Oregon wool ranks in the first class of states with a rating of "fine, fine medium and medium." In 1911 Oregon was credited with a total of 1,800,000 sheep and a total production of 15,300,000 pounds of washed and unwashed wool, valued at \$2,466,360. In 1912 Oregon had a total of 2,409,800 sheep; the total clip of the state amounted to 17,500,000 pounds, with a valuation of \$2,850,000. The value of the sheep at \$4.00 per head, is \$9,639,200. Climatic and other conditions in Oregon are ideal for fostering the sheep industry, and it is flourishing throughout the state as a whole. The days of the advantages of the unrestricted range are numbered in this state, however. With the cutting up of the large land holdings to provide homes for the steady influx of settlers, the many great flocks, too, once so common to Eastern and Central Oregon, are being gradually depleted and the sheep are

confined to smaller holdings and grazing grounds. The National Forest Reserves and public lands within the state, however, which aggregate a total of over 31,000,000 acres, will afford grazing facilities for the sheep flocks and cattle herds for many years to come. There are eight woolen mills in operation in the state that consume a large quantity of the output of wool, and the high grade products from these mills find a ready market throughout the civilized world. Oregon bred sheep have won international championships in competition with the best stock in the world and Oregon rams are in great demand in Australia, Argentina, South Africa and other foreign countries for breeding purposes.

Goats and Mohair.

Fifty years ago Angora goats were introduced in Western Oregon, being raised from pure bred stock imported from Asia Minor. All conditions for the development of an industry were found so peculiarly ideal that it has flourished and broadened until now there is scarcely a county in the state of Oregon where goats may not be found. The value of the animals are two-fold as profit-producers: The yield of an excellent quality of hair, which finds a stable and highly remunerative market, and the

goat itself is a valuable asset in the clearing of otherwise waste and brush-covered land. Angora husbandry now ranks well in importance with the livestock pursuits of the state. Oregon is second, if not first, in the number of Angora goats and production of mohair in the United States. The clip of mohair for 1912 amounted to 1,250,000 pounds and is valued at \$375,000, while the value of the yearly increase approximates \$400,000. More than half a million dollars of new wealth is added to the yield of Oregon farms annually from Angora goats. Oregon mohair ranks with the best in the Eastern markets and commands the highest market prices. Oregon Angora goats have carried away championship prizes at National and International exhibits and, aside from the annual sale of mohair, for years the sale of bucks throughout the Eastern states and in foreign countries for breeding purposes, has been a source of good profit to the owners. Single animals sell readily at \$3.00 to \$5.00, while as high as \$7.50 per head for high bred bucks has been paid.

STATE SCHOOL LANDS.

There remain unsold of the state school lands a total of 541,005 acres, which may be purchased at prices ranging from a minimum of \$7.50 per acre upward. Payments upon state lands, except tide lands, may be made as follows: One-fifth down, one-fifth in one year, with interest at 8% per annum; one-fifth in two years, with interest at 7% per annum; two-fifths on demand, with interest at 6% per annum; interest on all deferred payments payable annually. The demand payment will not be allowed to stand for a period longer than five years from the date of the issuance of the certificate. For tide lands full payment is required and a special application is prepared for this class of lands, which will be sent upon request by the Clerk of the State Land Board. No more than 320 acres of any one kind of land will be sold to one person. For table showing distribution of school lands among the counties of the state see page 10. For information address G. G. Brown, Clerk of State Land Board, Salem, Oregon.

OREGON AND THE FLAX INDUSTRY.

By DR. E. A. PIERCE, Chairman Committee on Flax Industry,
Portland Commercial Club.

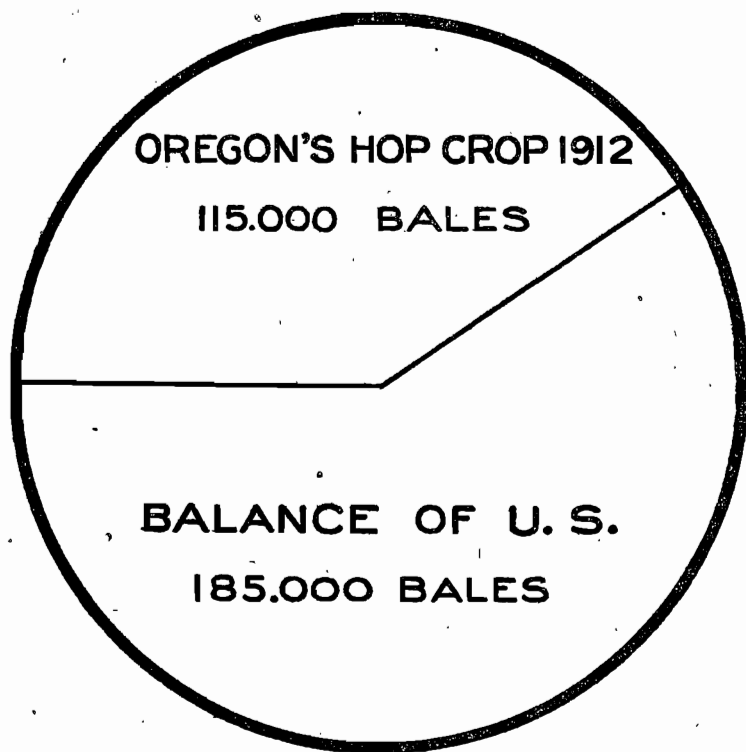
That flax can be successfully grown in Oregon in quality superior to that produced anywhere else in the world and in quantity sufficient to yield a greater return per acre to the farmer than can be realized from wheat or any other cereal crop, was demonstrated several years ago in the vicinity of Salem by Mr. Eugene Bosse, a Belgian flax expert, and substantiated by recent investigations and experiments conducted under the auspices of the Portland Commercial Club. After extensive and careful inquiry, in which the services of eminent authorities upon the question of flax culture, linen manufacture, etc., were enlisted, the special committee of the Commercial Club in its final report upon the subject, said: "The evidence is conclusive that Oregon, and Western Oregon in particular, is suited to produce not only excellent flax fibre, but fibre of such exceptional quality, in length, fineness, evenness and gloss, that it is in a class by itself when compared with any and all flax fibres now used in flax and linen manufacture in America. The

yield that can be depended upon when the culture is carried on, on the rich alluvial lands of the Willamette Valley, is greater than the two and a half tons per acre of the short fibre flax grown in Minnesota and other Northwestern states." While the farmers of Minnesota realize an average weight of two and one-half tons of flax fibre per acre, with an average length of 12 inches, for which they receive a return of \$35.00 per acre, the average length of the flax grown in the Willamette Valley is 36 inches and more, and the yield is from three to four tons per acre, representing a return of \$45.00 to \$60.00 per acre to the farmer. The peculiar advantages of Oregon's climate and soil for the successful development of this industry is readily apparent. Contrary to the belief of some, that the cultivation of flax impoverishes the soil, it has been demonstrated conclusively that it can be grown successfully in a five-course rotation and takes less out of the ground than wheat. Notwithstanding the fact that the season was too far advanced

when the seed was sown, and the crop in some sections of the state was seriously damaged by inclement weather, the results obtained from 150 samples of seed distributed among the farmers in different sections of the state by a local linseed oil company, and under the auspices of the Portland Commercial Club, this Spring, proved eminently satisfactory. The experiments will be re-

peated upon a larger and more extensive scale next Spring (1913) in order to determine which localities are better suited to the production of flax for fibre and where flax can be grown to better advantage for seed. A large linseed oil plant in Portland is equipped to handle all of the seed and fibre that can or may be produced in Oregon at the ruling market price and a guarantee of a minimum price.

OREGON'S HOP CROP FOR 1912 IS 38% OF CROP FOR ENTIRE U.S. VALUE \$4,140,000



OREGON'S HOP INDUSTRY.

With over 23,000 acres in bearing vines, the state of Oregon, in 1912, produced an aggregate of 115,000 bales of hops, which, at an average of 180 pounds to the bale, amounted to 20,700,000 pounds.

At an average of 20 cents per pound—the price having fluctuated between 15 cents and 27 cents per pound during the season—this represents a total revenue to the state of \$4,140,000. Since the shrink-

age in hops in the curing process is 76%, or 38 pounds to the box of 50 pounds, this yield would amount to 65,550,000 pounds in the green state, for which the picker receives 1 cent per pound; \$665,500 of the total revenue from the hop industry is distributed, during the six weeks of the harvest, among the pickers, many of whom are women and children of neighboring families. The cost of production, to put the hops in the bale and ready for the market, is about 9 cents per pound, at the highest estimate, or \$1,863,000 (including cultivation, training, spraying, picking, curing and baling), leaving a net return to the growers of \$2,277,000. Since the \$1,863,000 representing the cost of production, is paid out for the greater part for labor, there is no other industry in the state that can compare with the hop industry for putting foreign money into general circulation. The latest authoritative estimate places the total hop crop of the United States at approximately 300,000 bales. Of these 35,000 bales were grown in New York State, 40,000 bales in Washington, and 110,000 bales in California. Thus Oregon, with a yield of 115,000 bales, produces 38%, or about three-eighths, of the entire crop of the United States. Since it requires the richest kind of soil to produce hops successfully in quality and quantity, the industry in this state is confined to a few counties. The chief ranches are in the Willamette Valley with some acreage in Jackson, Josephine and Douglas counties, where the richest and best of the beaverdam and overflow bottom lands are found. There are some instances, however, where hops are produced to a limited degree of success, from the standpoint of quality, upon the uplands of the Willamette Valley, but such instances are exceptions rather than the rule and only occur in isolated cases. An average yield in the Willamette Valley is about 2,000 pounds to the acre, but there are some yards, where scientific methods of cultivation and care (acquired from long years of experience and study) are practiced, which produce as high as 3,000 pounds per acre. The soil, climate and other natural conditions in the Willamette Valley, on the Willamette river bottoms, are ideal for

the culture of hops and the standard of quality is so high that the Oregon hop is in great demand in the English market, where the great bulk of the Oregon crop is disposed of and consumed, and commands a premium above the ruling market quotations for the choice grades. One particularly notable feature in connection with the Oregon hop industry of 1912 was the shipment of 15 carloads of hops, consisting of 1,750 bales (grown on one yard in Polk County) from Salem, in Marion County, direct to England. While practically all of the hops produced in Oregon are grown in Western Oregon, it has been demonstrated that this highly remunerative product (under favorable market conditions) can be successfully produced in certain localities in Eastern and Central Oregon, when water is applied to the soil. With the completion of the numerous irrigation projects now in process of development, the right of supremacy in this class of Oregon's natural resources, now held indisputably by Western Oregon, will be closely contested by certain districts east of the Cascade mountains. The present hop acreage of the state is distributed among the several counties as follows:

County.	Acres.
Benton.....	204
Clackamas.....	1,472
Douglas.....	82
Jackson.....	61
Josephine.....	250
Lane.....	750
Linn.....	300
Marion.....	11,000
Polk.....	5,000
Wasco.....	25
Washington.....	1,600
Yamhill.....	2,500
Total.....	23,244

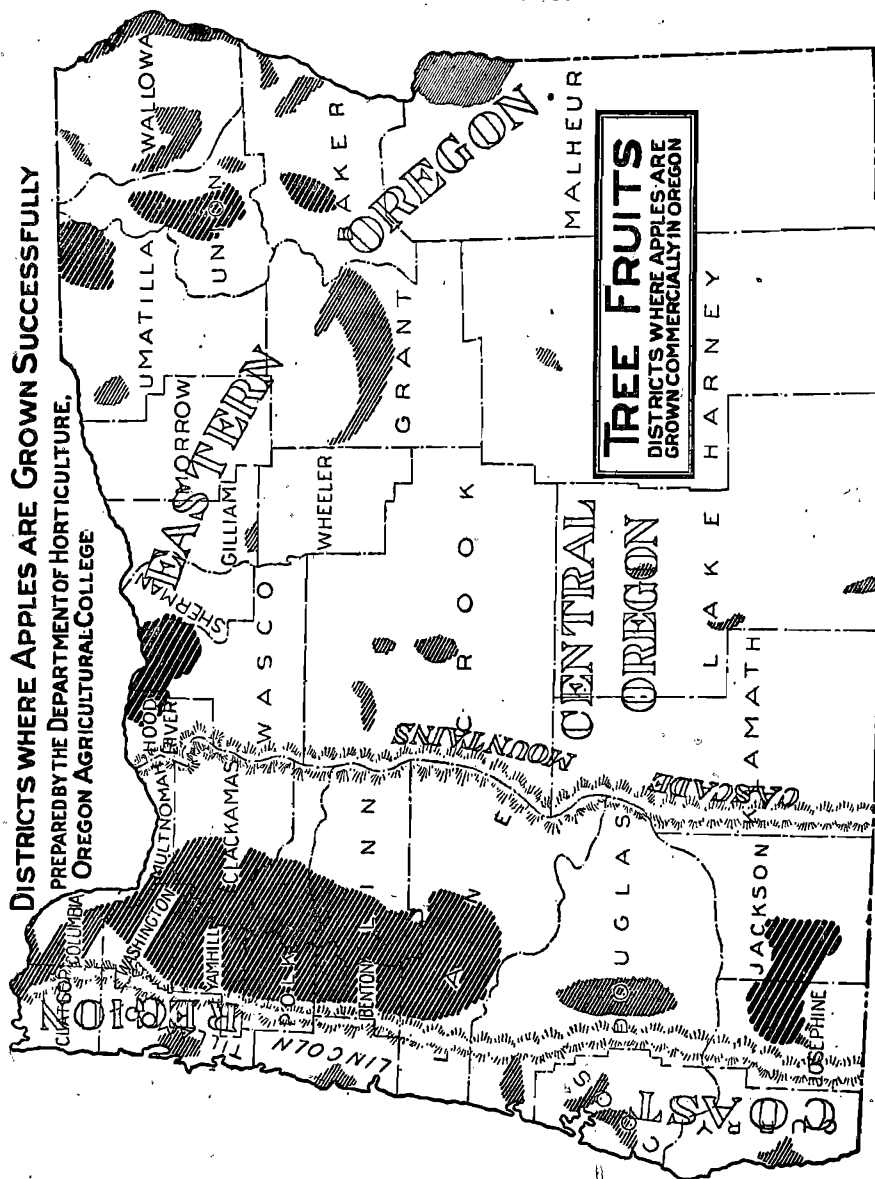
GRAPE PRODUCTION.

(Figures from U. S. Census, 1910.)

In 1909 Oregon had 381,000 mature grape vines, which yielded 3,207,000 pounds of grapes. In grape production Oregon ranked ahead of Washington, Colorado and every other Western state, excepting California; ranking equal with Florida. Oregon had 469,000 young grape vines, which will mature to commercial bearing age in 1913. In this respect Oregon ranks seventh in the Union.

FRUIT PRODUCTION AND RANK OF COUNTIES IN OREGON.—1910.

COUNTY.	Rank.	Apples. Bushels.	Rank.	Peaches and Nectarines. Bushels.	Rank.	Pears. Bushels.	Rank.	Plums and Prunes. Bushels.	Rank.	Cherries. Bushels.	Rank.	Apricots. Bushels.	Rank.	Quinces. Bushels.	Rank.	Grapes. Pounds.	Rank.	Strawberries. Quarts.	Rank.	Raspberries and Loganberries. Quarts.	Rank.	Blackberries and Dewberries. Quarts.	Rank.	Walnuts. Pounds.
Baker.....	17	45,204	4	13,968	18	6,110	17	8,888	13	3,591	2	1,160	16	21	15	14,660	18	42,977	19	23,266	19	4,230	15	125
Benton.....	14	54,748	12	1,785	12	10,045	10	40,815	14	3,841	12	34	9	161	14	52,849	13	87,806	11	48,992	20	3,545	12	857
Clackamas.....	4	144,829	7	6,662	4	28,152	4	132,232	2	19,736	8	104	1	1,250	1	535,267	1	1,080,302	4	190,214	3	71,913	5	4,653
Clatsop.....	24	13,793	27	38	27	736	23	2,308	25	418	26	20	5	30	20	19,349	20	19,349	17	27,059	29	785	21	785
Columbia.....	20	31,424	30	19	19	4,894	16	9,690	17	2,439	24	4	10	140	20	5,078	23	12,407	28	4,025	26	1,927	15	125
Coos.....	3	150,658	18	527	17	6,800	14	15,358	18	1,692	25	2	1	106	18	6,360	14	88,142	13	41,033	14	10,407	11	1,115
Curry.....	22	21,180	22	113	23	1,365	19	5,577	21	671	17	12	16	21	17	8,117	25	5,891	25	2,012	14	460		
Crook.....	28	6,880	32	3	29	420	29	881	26	380	23	5	23	27	27	475	30	1,347	30	2,822	32	184	19	75
Douglas.....	9	93,952	3	14,135	5	22,844	3	161,905	12	5,769	3	370	7	302	6	214,501	11	112,051	5	110,532	8	31,140	7	1,985
Gilliam.....	30	5,238	26	66	26	792	28	1,113	27	206	17	12	22	1	28	345	29	1,355	33	786	27	1,327	21	.....
Grant.....	15	47,368	25	73	20	2,339	21	5,373	22	538	20	9	23	25	25	1,102	24	11,532	21	10,927	28	1,005	21	.....
Harney.....	34	1,081	34	.....	34	.....	34	45	34	2	26	23	30	30	30	.....	31	1,155	32	1,155	34	.....	21	.....
Hood River.....	6	122,423	23	83	15	7,280	27	1,324	16	2,077	19	10	15	36	24	1,270	8	951,145	23	6,956	16	8,353	20	80
Jackson.....	1	170,087	1	70,280	1	87,589	15	12,966	15	2,819	1	1,745	13	80	3	443,981	16	62,213	10	52,964	4	68,467	9	1,845
Josephine.....	19	34,388	2	16,513	14	7,740	22	4,195	20	818	26	.....	14	51	7	184,752	17	43,191	15	34,513	6	38,075	13	670
Klamath.....	32	2,673	31	11	33	124	33	308	31	39	22	6	22	1	30	.....	34	204	34	350	31	420	21	.....
Lake.....	25	13,252	16	936	25	861	26	1,556	23	445	7	109	21	2	30	.....	28	2,727	29	2,727	24	2,040	18	80
Lane.....	7	98,167	8	6,206	11	10,537	8	47,119	8	12,158	16	18	12	98	10	100,606	15	74,277	6	87,580	9	30,121	4	4,853
Lincoln.....	18	40,972	21	166	24	1,361	18	5,989	24	441	26	.....	17	20	26	740	19	39,481	18	25,468	22	2,304	17	90
Linn.....	8	95,993	9	4,727	9	15,072	7	68,030	9	10,065	13	33	6	366	11	91,837	8	155,186	14	39,327	18	5,178	6	3,245
Malheur.....	29	5,709	29	26	31	226	30	800	28	153	25	2	23	22	22	4,225	26	4,158	27	4,262	23	2,184	21	.....
Marion.....	2	153,183	5	10,968	2	34,308	1	458,272	2	17,947	21	7	4	577	9	101,725	5	259,045	2	423,143	13	12,833	3	6,567
Morrow.....	31	3,000	24	80	30	259	32	440	33	17	26	23	23	21	21	5,055	27	3,330	31	1,430	21	2,326	21	.....
Multnomah.....	16	47,190	19	486	8	18,253	12	26,330	1	22,781	5	172	5	377	12	69,435	2	1,067,907	1	77,379	1	812,442	2	8,787
Polk.....	13	70,408	10	3,615	6	22,709	5	128,082	5	13,108	14	32	8	283	13	65,906	7	160,839	7	84,444	7	32,821	8	1,696
Sherman.....	33	2,127	13	1,673	28	718	31	459	29	122	15	80	23	16	16	13,180	33	580	25	5,136	12	19,540	21	.....
Tillamook.....	27	7,326	33	1	32	159	25	1,653	32	87	26	23	23	30	30	.....	21	17,259	16	28,310	17	5,744	21	.....
Umatilla.....	12	80,764	20	441	16	7,208	13	25,677	10	7,853	6	141	19	14	5	872,032	4	418,408	9	54,387	2	153,168	21	.....
Union.....	5	127,979	11	2,781	10	10,625	9	40,997	6	13,026	9	94	23	29	29	265	9	126,989	8	65,731	11	19,766	21	.....
Wallowa.....	23	20,408	15	1,149	21	2,221	20	2,557	19	1,091	10	80	23	19	19	5,170	22	16,306	22	8,087	30	498	20	80
Wasco.....	21	24,655	14	1,418	13	8,445	11	37,248	11	5,883	4	354	18	17	2	485,097	12	92,560	20	14,342	10	27,257	16	110
Washington.....	10	92,943	17	853	3	32,551	6	110,553	7	12,800	18	11	2	827	4	414,708	10	116,512	12	44,470	15	9,820	10	1,363
Wheeler.....	26	12,233	28	85	22	1,439	24	1,716	30	108	22	6	23	23	23	2,125	32	828	26	4,735	33	111	16	110
Yamhill.....	11	59,292	6	10,170	7	20,238	2	384,232	3	18,000	11	44	3	590	8	105,043	6	240,306	3	414,925	5	38,111	1	39,871
		1,930,926		179,030		874,620		1,747,587		181,089		4,618		5,344		3,205,874		5,322,030		2,644,948		915,744		79,080



As the apple industry, which has been developed from an insignificant beginning to one of leading importance—the Oregon apple is now known the world over—so is the promise for the dairy industry. The resources of climate, long open season, and the milk and butterfat producing foods which reach their highest development in this state, are a trilogy which cannot be under estimated in value. The need is men who are willing to work and to use their best energies.

HORTICULTURE IN OREGON.

By W. K. NEWELL, President Oregon State Board of Horticulture.

Since the time of earliest settlement Oregon has been noted for her fine fruit, and now fruit growing is rapidly becoming one of the state's most important industries. In many localities, such as Rogue River and Hood River valleys, it is the industry, and it may be said, without boasting, that nowhere else in the world has the science of fruit production and marketing been so highly developed.

Oregon fruit growers have learned the very important lessons of specializing in growing and co-operating in marketing, and their great success is due to these methods. Under modern conditions the lone grower can have but indifferent success. Space will not permit a detailed description of the various localities and their leading fruits, but the Rogue River Valley's great specialty is pears, with Yellow Newtown apples and peaches also very important; the Umpqua Valley, early strawberries, prunes, peaches, and with many young apple and pear orchards being planted; Western Oregon, prunes, cherries and all kinds of small fruits, with large plantings of young apple orchards; Hood River Valley and Mosier, Spitzenberg and Yellow Newtown apples and strawberries; The Dalles, peaches, cherries, plums and prunes, cantaloupes and apples; Milton-Freewater, peaches, early strawberries, prunes and apples; Grande Ronde Valley, apples, cherries and prunes; Snake River Valley, prunes, peaches and apples.

Nut growing is becoming an important item in Western Oregon also. The English walnut has been found to thrive

very well indeed in this climate, and several thousand acres of them have been set in the Willamette Valley. Many of them are now bearing successfully and production will increase very rapidly. The filbert is right at home here also; they bear prolifically and are very profitable. The almond is grown in Southern Oregon on a commercial scale also.

The value of the fruit crop for the state in 1910 was \$6,662,500 and it will undoubtedly reach \$10,000,000 or more in 1912. The apple crop is conservatively estimated at 225% greater than ever before. Large numbers of young trees are coming into bearing each year and production will increase rapidly.

APPLE PRODUCTION IN OREGON.

(Figures from U. S. Census, 1910.)

In 1909 Oregon had 2,030,000 apple trees of bearing age and 2,241,000 apple trees of less than bearing age. The yield was 1,931,000 bushels, returning \$1,657,000 to the growers, or an average return of 86 cents a bushel, as compared with 54 cents in New York State, 49 cents in Michigan, 51 cents in Virginia, 40 cents in Kentucky and 60 cents in Arkansas. The number of young trees was fewer in Oregon than in any of the states named.

According to the 1910 census, the apple yield of the United States for the year preceding was 147,516,000 bushels. Of this total only 1,931,000 bushels were grown in Oregon—less than 1½%

(Continued on Page 42.)

OREGON'S FRUIT CROP.

Amount and Value of Principal Fruits Grown in Oregon in 1910.

Apples.....	2,650,000 boxes	\$2,500,000.00
Pears.....	292,000 boxes	420,000.00
Peaches.....	970,000 boxes	485,000.00
Cherries.....	4,800,000 pounds	200,000.00
Plums and Fresh Prunes.....	300,000 crates	195,000.00
Dried Prunes.....	28,000,000 pounds	1,680,000.00
Apricots.....	15,000 boxes	10,000.00
Grapes.....	4,500,000 pounds	135,000.00
Strawberries.....	10,500,000 pounds	577,000.00
Blackberries.....	1,750,000 pounds	75,000.00
Raspberries.....	2,250,000 pounds	105,000.00
Loganberries.....	4,000,000 pounds	165,000.00
Currents.....	425,000 pounds	25,500.00
Gooseberries.....	500,000 pounds	20,000.00
Quinces, etc.....		35,000.00
Nuts.....	250,000 pounds	35,000.00
Total Value.....		\$6,662,500.00

IRRIGATION IN OREGON.

(Census Bureau on "Irrigation in Oregon," U. S. Census, 1910.)

COUNTY.	Land in Farms.	Improved Land in Farms.	Acreage.	Irrigated. 1909.	Acreage Capable of Irrigation, 1910. † (in segrega- tions).	Acreage Included in Projects. ‡	Cost of Enterprises. || (To July 1, 1910)	Est. Final Cost Existing Enterprises (July 1, 1910).	Average Cost Per Acre In- cluded in Projects. §
			1899.						
*Baker.....	267,695	137,759	46,754	129,873	130,014	241,919	\$ 1,446,334.00	\$ 5,272,463.00	\$21.79
*Crook.....	571,600	138,364	13,021	55,000	111,360	453,811	1,931,817.00	4,542,082.00	10.67
*Douglas.....	577,428	117,115	.....	1,708	4,500	9,349	78,127.00	78,127.00	8.36
*Gilliam.....	434,277	235,668	1,086	2,367	3,370	32,809	32,809.00	32,809.00	9.73
*Grant.....	445,170	53,045	19,832	36,069	38,631	73,578	241,089.00	250,986.00	3.41
*Harnay.....	562,204	199,271	111,090	129,135	136,021	561,548	410,980.00	2,591,980.00	4.48
*Hood River.....	38,040	14,284	.....	8,071	14,150	48,994	361,714.00	392,214.00	8.01
*Jackson.....	297,171	103,238	7,054	12,239	17,978	82,427	457,636.00	1,770,636.00	21.48
*Josephine.....	131,845	30,969	4,121	12,866	14,503	24,059	239,327.00	239,327.00	9.98
*Klamath.....	454,340	176,564	29,911	46,975	62,785	208,105	1,910,580.00	5,110,580.00	24.56
*Lake.....	401,555	104,419	51,995	57,078	59,612	273,548	769,006.00	7,338,681.00	26.83
*Malheur.....	230,175	11,801	49,265	67,626	79,210	208,025	2,032,636.00	5,697,171.00	24.31
*Morrow.....	673,907	236,029	8,865	7,541	8,116	14,937	187,716.00	187,716.00	12.57
*Sherman.....	572,526	273,918	112	218	329	459	9,512.00	9,512.00	20.72
*Umatilla.....	1,090,258	544,513	5,168	31,022	50,213	94,169	2,019,161.00	2,593,387.00	27.54
*Union.....	395,769	165,499	25,735	35,831	37,280	45,517	136,204.00	136,204.00	2.99
*Wallowa.....	354,732	86,049	14,016	39,370	42,855	54,992	193,084.00	211,114.00	3.86
*Wasco.....	543,754	171,051	3,342	5,703	6,989	17,276	96,167.00	96,167.00	5.57
*Washington.....	240,323	107,919	.....	179	207	563	6,381.00	6,381.00	11.35
*Wheeler.....	415,567	53,396	4,993	6,253	6,983	9,414	76,305.00	76,305.00	8.11
†All other counties.....	3,206,661	1,242,844	1,215	585	843	101,481	87,452.00	3,012,477.00	29.69
Total.....	11,685,110	4,274,803	388,310	686,129	830,526	2,527,208	\$12,760,214.00	\$39,215,619.00	\$15.52

*Change in boundaries. The organization of Hood River County from a part of Wasco County in 1908. Annexation of a part of Union County to Baker County in 1902.

†The group of all other counties comprises for 1909 and 1910 twelve in which there was some irrigation: Clatsop, Columbia, Benton, Clackamas, Coos, Curry, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Tillamook and Yamhill.

‡In 1910 existing enterprises were ready to supply water to 144,397 acres more than were irrigated in 1909. The acreage included in projects exceeds the acreage irrigated in 1909 by 1,941,070 acres, which is more than six times the acreage brought under irrigation in the last decade and nearly three times the total area irrigated in 1909. This acreage represents the area which will be available for the extension of irrigation in the next few years upon the completion of the projects now under construction. It indicates in a general way the area available for settlement, although much of this unirrigated land is in farms already settled.

||Shows the total cost of existing enterprises up to July 1, 1910, including construction of works and acquisition of rights, but not operation and maintenance.

§The average cost per acre, acreage included in projects, is based upon the total acreage included in projects and the estimated final cost of completing existing enterprises, and not actual cost of construction reported up to July 1, 1910.

TOTAL WATER SUPPLY AND AMOUNT AVAILABLE FOR IRRIGATION.

(Data from Biennial Report Oregon Conservation Commission, 1912.)

Stream and Locality.	Mean Yearly Run-off (Acre-Feet)	Capable of Utilization (Acre-Feet)
Eastern Oregon.		
Tributaries of Columbia River:		
Owyhee river.....	1,100,000	600,000
Malheur river and Willow creek.....	550,000	440,000
Burnt river.....	140,000	80,000
Powder river.....	440,000	380,000
Grande Ronde river, above Wallowa river.....	572,000	350,000
Wallowa river.....	780,000	200,000
Walla Walla river.....	200,000	80,000
Umatilla river.....	550,000	350,000
John Day river.....	1,450,000	900,000
Deschutes river, at Benham Falls.....	1,220,000	1,100,000
Crooked river.....	810,000	280,000
Tumalo creek.....	97,000	80,000
Squaw creek.....	72,000	50,000
Hood river.....	946,000	120,000
Other streams.....	200,000	100,000
Total Columbia river drainage.....	8,627,000	4,990,000
Streams in California Drainage:		
Link river at Klamath Falls.....	1,780,000	500,000
Lost river at Olene.....	283,000	250,000
Total.....	2,063,000	750,000
Streams of Interior Drainage:		
Goose lake tributaries.....	134,000	107,000
Warner lake tributaries.....	300,000	240,000
Albert lake tributaries.....	180,000	144,000
Anna river.....	100,000	40,000
Silver lake tributaries.....	65,000	52,000
Catlow Valley and Alvord lake tributaries.....	50,000	40,000
Donner und Blitzen river and tributaries.....	190,000	144,000
Silvies river and Silver creek.....	212,000	170,000
Total Interior drainage.....	1,220,000	937,000
Total Eastern Oregon.....	11,910,000	6,677,000
Western Oregon.		
Willamette River and Tributaries:		
Clackamas river.....	2,420,000	80,000
Molalla river.....	656,000	70,000
Santiam river.....	5,000,000	680,000
McKenzie river.....	3,500,000	800,000
Middle Fork, Willamette river.....	3,000,000	370,000
Coast Fork, Willamette river.....	1,270,000	30,000
Luckiamute river.....	740,000	20,000
Yamhill river.....	1,500,000	40,000
Tualatin river.....	1,500,000	30,000
Total Willamette river.....	19,586,000	2,060,000
Umpqua River and Tributaries.....	5,000,000	50,000
Rogue River and Tributaries.....	3,200,000	250,000
Total Pacific Ocean drainage.....	8,200,000	300,000
Total Western Oregon.....	27,786,000	2,360,000
GRAND TOTAL.....	39,696,000	9,037,000

*The total of 6,677,000 acre-feet of water in Eastern Oregon streams, capable of utilization for irrigation, is sufficient for the reclamation of approximately 3,000,000 acres of rich desert land. This would provide homes for 30,000 families, which, at an average of five members to the family, would mean 150,000 additional population. The total of 2,360,000 acre-feet available for irrigation in Western Oregon streams is sufficient to water 1,000,000 acres of land, and the combined water resources of the state, capable of utilization for irrigation, is sufficient to irrigate over 4,000,000 acres of land.

APPLE PRODUCTION IN OREGON.

Continued from Page 39.

of the total. There were 151,322,000 bearing trees reported in the census from all of the states. Of this total only 2,030,000 trees were in Oregon. The trees of less than bearing age in Oregon were reported as 2,241,000, making a total of 4,271,000 trees of all ages in Oregon, or fewer than 2% of the total number of apple trees of all ages in the United States, 217,115,000 trees. Increase of apple plantings in Oregon, while necessitating well systematized marketing methods, owing to the remoteness from the world's great markets, will have little effect on the total production of apples in the United States. The peculiar conditions of soil and climate which make Oregon's apples superior in appearance and quality are a guarantee to Oregon apple growers of a permanent

advantage in marketing. Oregon apple growers have paid special attention to cultivation, care of trees and packing, and their product has topped the market the world over.

PEAR TREES IN OREGON.

(Figures from U. S. Census, 1910.)

In 1909 Oregon had 274,000 bearing pear trees and 796,000 pear trees under bearing age. Oregon ranked fourth of all states of the Union for value of product; sixth in quantity of yield, and second in number of young pear trees planted. New York State was first in this respect. Oregon pears for years have brought top prices in the markets of the world owing to their superior quality. The most celebrated pear district is in the Rogue River Valley.

IRRIGATION AND WATER POWER.

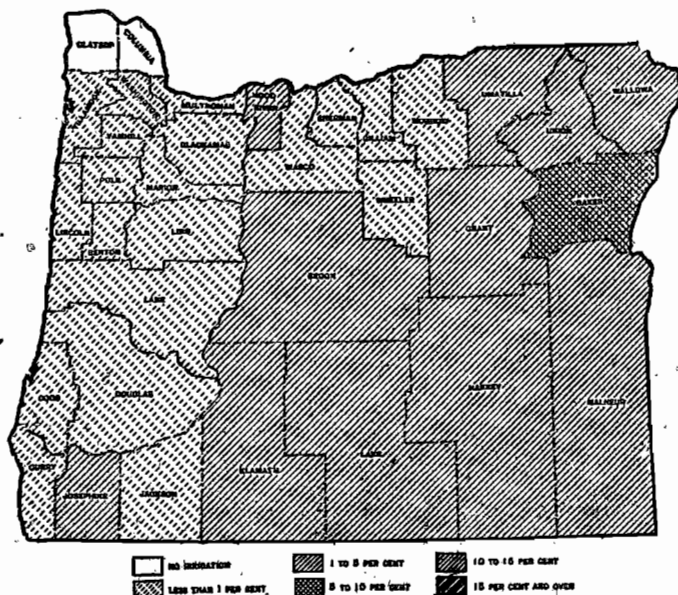
By JOHN H. LEWIS, State Engineer.

The water resources of Oregon are perhaps greater than those of any other state in the Union. This is due to the presence of high snow-capped mountains

which descend rapidly to sea level, the existence of broad valleys at the foot of these mountains, and to the further fact that in the mountainous regions of

PER CENT OF TOTAL LAND AREA IRRIGATED.

[Per cent for the state, I.L.]



Oregon the heaviest rainfall at any point in the United States is believed to occur. (Glenora, 135.3 inches.)

Our streams can thus be used for both power and irrigation without serious conflict.

Owing to the uneven distribution of rainfall, irrigation in many districts is absolutely essential for those crops which, like grain, cannot be produced by dry farming methods. This unevenness of rainfall is illustrated by the total annual rainfall at Glenora, 135.3; Portland, 45.1; Government Camp, 90.4; The Dalles, 15.0; Umatilla, 8.3 inches, as shown by the United States records, each point being approximately 50 miles east of the point mentioned previously.

For years irrigation in the Willamette Valley has not been considered necessary, but owing to the great variation in seasonal precipitation (Spring 23.5%, Summer 6.6%, Fall 26.6% and Winter 43.3%), it is now considered beneficial for certain crops, as during the Summer only about three inches of precipitation occurs on the average.

In general, irrigation is necessary for diversified farming in Eastern and Southern Oregon. A total of 686,129 acres is

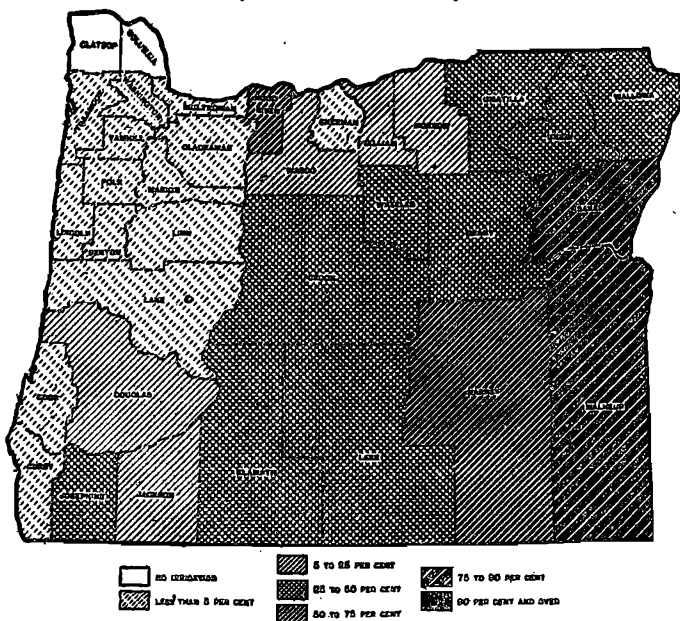
now irrigated in Oregon, the increase for the past 10 years being 77%, according to the U. S. census. Only 11.3% of this increase in irrigated acreage has been due to the U. S. Reclamation Act, the Carey Act, the Irrigation District Law, and private capital operating on a large scale, as compared with 81.7%, which was accomplished through individual or co-operative enterprise. The acre cost of construction increased from \$5.00 to \$15.00 during this period. Many attractive openings for individual effort in the construction of small projects must, therefore, still remain.

Value of Water—Dry farming land is worth from \$5.00 to \$25.00 per acre, but with water, it is worth from \$75.00 to \$500.00 per acre. The question of legal title to water is therefore a most important matter. Before investing in a water right in any state one should first inquire if the laws of that state give one adequate protection.

Water Laws—Oregon leads her neighboring states in the protection granted water users. Her laws are recommended by "The Outlook," published in New York, as a model for other states. In three years' time, complete determina-

PER CENT OF NUMBER OF FARMS IRRIGATED.

[Per cent for the state, 14.7.]



SUMMARY OF CAREY ACT (IRRIGATION) LANDS IN OREGON.
 Segregated by United States and Contracts Executed Between Company and Board.

Name of Company.	Location.	Acres.	Lien Fixed by Board.	Annual Maintenance (Per Acre)	Remarks.
Deschutes Reclamation & Irrigation Co.....	Crook County..	1,280	\$5,000	50c	Gravity system from Deschutes river.
Central Oregon Irrigation Co.....	Crook County..	139,204.63	\$2.50 per waste acre. \$40 per irrigable acre.	80c	Gravity system from Deschutes river.
Central Oregon Irrigation Co.....	Crook County..	74,198.02	\$2.50 per waste acre. \$80 per irrigable acre.	.....	Gravity system from Deschutes river and storage in Crane Prairie reservoir.
Deschutes Land Co.....	Crook and Klamath Counties	81,082.21	\$36 acre.	50c	Gravity system from Deschutes river and storage in Crescent lake.
Desert Land Board..... (Laidlaw Project.)	Crook County..	27,004.83	.....	.....	Attempt now being made to reorganize this project on new and firm basis.
Portland Irrigation Co.... (Northwest Townsite Co.)	Lake County...	12,037.54	\$553,724.54	\$1.00	Gravity system from Che-waucan river and storage in reservoir.
Powder Land & Irrigation Co.....	Baker County..	43,033.54	\$4,388,020	\$1.00	Gravity system from Powder river and other streams and storage in Thief Valley and Balm Creek reservoirs.

Completed Projects. Lands all Deeded by State.

Name of Company.	Location.	Acres.	Remarks.
Brownell Desert Reclamation Association.....	Umatilla Co....	240	Gravity system from Umatilla river.

Total under contract with the United States 327,840.77 acres.

Applications for Segregation Under Carey Act Now Pending Before General Land Office.

Name of Company.	Location.	Acres.
Jordan Valley Irrigation Co.....	Malheur County.....	37,870.79
Harper Valley Irrigation Co.....	Malheur County.....	14,633.11
Eastern Oregon Irrigation Co.....	Baker County.....	21,624.46
Powder Land & Irrigation Co.....	Baker County.....	1,356.16
Deschutes Irrigation & Power Co.....	Crook County.....	12,470.23
Warner Lake Irrigation Co.....	Harney and Lake Counties.....	79,602.12
Total.....		167,556.86

TEMPORARY WITHDRAWALS.
 (Under the Act of March 15, 1910.)

Name of Company.	Location.	Acres.
Desert Land Board.....	Crook County.....	4,761.56
Central Oregon Irrigation Co.....	Crook County.....	160.00
Total.....		4,921.56

Grand Total of lands affected by the Carey Act..... 500,319.19

Only one project has land now open for entry and sale: The Central Oregon Irrigation Company, of Deschutes, Oregon. Total acreage in project, 139,204.63. Sales approved by Desert Land Board, up to October 1, 1912, 61,497.56 acres. Additional area now open to entry and sale, 16,115.13 acres. Construction work on north canal, last big canal to complete project, commenced in April, 1912. October 1, 1912, 64 per cent of the work necessary to complete the diversion dam and the first mile and a half of canal (concrete lined with carrying capacity of 1,000 second feet) had been completed by the company.

tions have been made by the state's water board of 965 rights, which were initiated prior to the adoption of the new law, and all of which have been confirmed by the courts without a single appeal to the Supreme Court. Adjudications are well under way on 25 complete stream systems, including all tributaries. The most important of these are the Umatilla, Grande Ronde, Powder, Silvies, Crooked, Chewaucan and Rogue rivers; Willow creek in Malheur County, Willow creek in Morrow County and Squaw and Tumalo creeks in Crook County. Old rights which have been adjudicated have an increased value, due to the fact that definite record evidence of title can be quickly obtained and without cost.

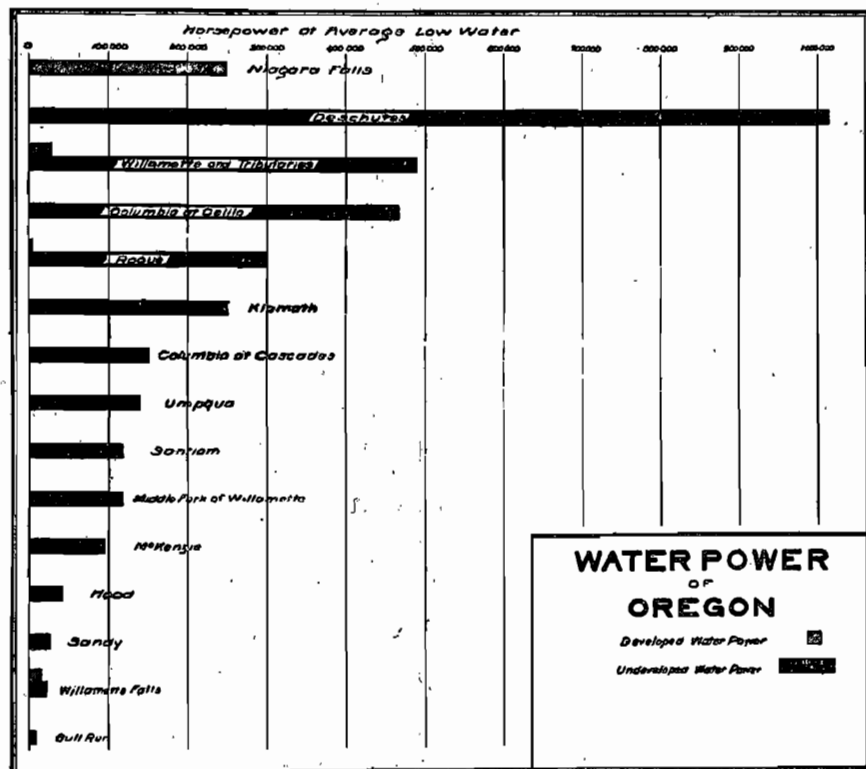
In three years new rights have been initiated, by applications to the State Engineer, in which the estimated cost of the proposed works exceeds \$32,000,000. This shows confidence in our water laws.

Storage rights are equally protected,

and on any adjudicated stream the state undertakes, through the employment of water masters, to see that stored water is delivered, no matter what the size of the reservoir or its distance from the land may be. This opens up a new field for investment.

Water Power—Oregon has 3,317,000 undeveloped water horsepower, according to the best available information. To produce this power, which is now going to waste in the streams of Oregon every year, by steam engines, would require the consumption of 56,000,000 tons of coal annually, at an average cost of \$4.00 per ton, or \$224,000,000. The lack of cheap coal in Oregon is therefore no serious handicap. In fact, this "white coal" is a greater asset than its equivalent in black coal, if the recent unprecedented development in Norway and Sweden, due to abundant and cheap water power, is any guide.

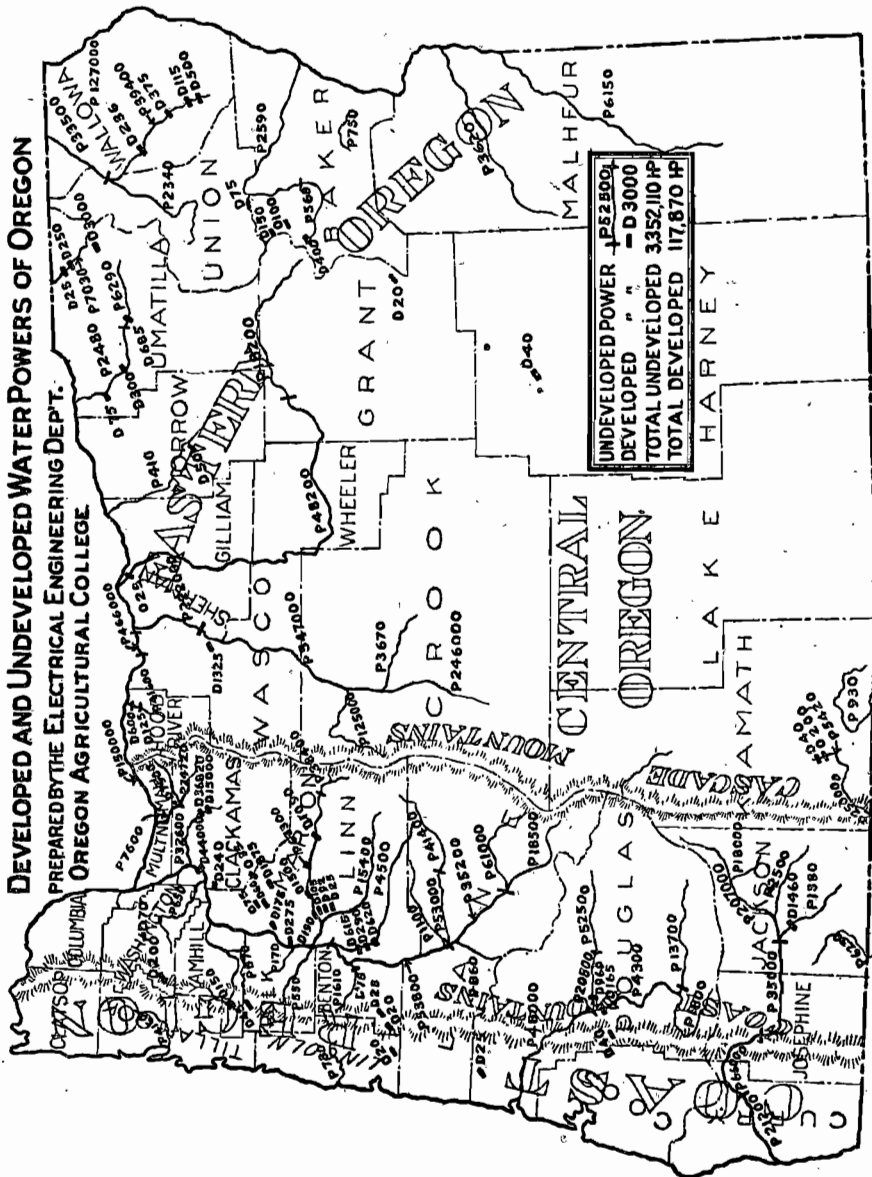
U. S. Consul T. H. Norton, of Germany, states in the Consular reports that "in Sweden the cost per annual horse-



power developed by hydro-electric plants is apt to range above \$13.40. In Norway rates vary usually between \$5.40 and \$10.70. There are some cases where the cost is as low as \$4.00. The height of the waterfalls utilized is from 7 to 243 feet, but as a rule, 50 feet."

It is believed that much of Oregon's water power can be developed as cheaply as that in Norway and Sweden. The advantage of this in attracting industries requiring large quantities of cheap power is incalculable.

To produce power by steam costs



from \$40.00 to \$180.00 per horsepower per annum, depending upon the size of the plant. (Coal \$4.00 per ton.)

Cheap water power may be used in pulp and paper factories, fertilizer plants (extracting nitrogen from the air by an electric process), aluminum, iron, steel, copper, carborundum and carbide works, and in many chemical processes. Many industries might well utilize our timber and other abundant raw material as well as our water power. The production of pig iron from low grade ores in Sweden by electrical processes is now a commercial success.

Oregon in the near future should be a manufacturing center of considerable

prominence, as with the opening of the Panama Canal, the problem of shipping heavy freight to Atlantic markets, as well as the labor problem, will be solved.

Detailed Information—Those desiring further information relative to Oregon's water resources should address the State Engineer, Salem, Oregon. Bulletin No. 2 on "The Oregon System of Water Titles," will be mailed upon request. The State Engineer will also furnish general information as to the amount of unappropriated water in any particular stream under investigation. Some general information as to large water power projects will also be furnished.

FISHING INDUSTRY OF OREGON.

By R. E. CLANTON, Master Fish Warden.

Protected and fostered by a code of laws which is as loyally observed by the fishing interests as it is rigidly enforced by the authorities, the salmon industry has developed into one of the most stable of the leading industries of the state and is productive of a substantial revenue which is annually on the increase. The total salmon product of the coast streams and of the Columbia river, the past year represented a total value of approximately \$6,000,000. The number of young fry liberated from the state hatcheries in the streams tributary to the Columbia river during the 1911-1912 season was 13,871,000. The number of fry liberated in the coast streams was 15,995,028. The operations in the twelve hatcheries of the state during the past year (1911) have been the most successful in the history of the industry and the turning out of approximately 30,000,000 young salmon fry is the record for one season. As a result of scientific investigation and experimentation on the part of the State Fish and Game Commission, a systematic method of retaining and feeding the young fry, by the aid of a series of feeding and thinning ponds, was adopted for the first time this year. Under this plan the young fish are held until they have reached an age and size sufficient to protect themselves from their predatory enemies before being turned out into the streams on the way to the ocean, and it has proven most successful. The Bonneville hatchery, on the Columbia river, in Multnomah County, is the largest plant of the kind in the world. It is equipped with central electric apparatus for grinding and retorts for cooking the food for the young fry,

and this plant alone, with its auxiliary feeding and nursery ponds, will be capable of handling 30,000,000 salmon fry per year, besides the hatching and caring for upwards of 5,000,000 trout eggs per season. Of the \$6,000,000 revenue realized from the salmon industry during the past year does not include hundreds and thousands of tons of fish which were locally consumed and of which no records are available and at least \$5,000,000 was returned for the product sold out of the state.

Halibut, Oysters, Clams, Etc.

While the shell fish (including oysters, clams, crabs, etc.) industry has been flourishing along the Oregon coast for a number of years and is productive of considerable revenue, recent investigations have brought about the discovery of greater possibilities in the oyster industry along the coast, to the development of which the State Fish and Game Commission are turning their attention, and which gives promise of excellent results within a few years. It has also been known for years that immense halibut "banks" exist along the entire coast of Oregon, the extent of which has never been surveyed, but known to exceed 700 square miles. No effort heretofore has been made to develop this industry. The State Fish and Game Commission, however, have recently taken the matter up and will devote their energies toward the early development of this industry, by urging state and government aid in securing surveys and charts of the great banks, which will in time prove a prolific producer of revenue to the state and the people.

TIMBER IN OREGON.

One-Fifth of All in United States.

More than one-fifth of the standing timber in the United States is in Oregon.
 Standing timber in Oregon :

496,048,000 feet

Standing timber in the United States :

2,240,000,000 feet

This lumber, sawed, at the rate of \$10.00 per thousand feet, will sell for \$4,960,480,000, a sum over five times the National debt.

TIMBER ACREAGE IN OREGON.

COUNTY	Total.	In Forest Reserves.	Privately Owned.
Baker.....	661,540	451,540	240,000
Benton.....	120,800	640	120,160
Clackamas.....	660,815	566,555	94,260
Clatsop.....	500,000		500,000
Columbia.....	222,000		222,000
Coos.....	253,270	100,270	153,000
Crook.....	2,024,231	1,194,231	830,000
Curry.....	818,703	618,703	200,000
Douglas.....	2,419,384	919,384	1,500,000
Grant.....	1,882,968	1,422,968	450,000
Harney.....	585,317	435,317	150,000
Hood River.....	233,762	183,762	50,000
Jackson.....	1,278,908	428,908	850,000
Josephine.....	670,104	370,104	300,000
Klamath.....	1,526,079	1,020,079	500,000
Lake.....	1,649,969	1,149,969	500,000
Lane.....	2,618,214	1,368,374	1,249,840
Lincoln.....	483,265	118,265	375,000
Linn.....	821,099	421,099	400,000
Malheur.....	125,599	599	125,000
Marion.....	398,044	198,044	200,000
Morrow.....	117,936	117,936	
Multnomah.....	85,755	25,755	60,000
Polk.....	152,720	2,720	150,000
Tillamook.....	579,718	79,718	500,000
Umatilla.....	533,079	433,079	100,000
Union.....	739,278	489,278	250,000
Wallowa.....	1,563,981	1,113,981	450,000
Wasco.....	322,030	197,030	125,000
Washington.....	167,000		167,000
Wheeler.....	413,724	163,724	250,000
Yamhill.....	83,151	8,151	75,000
Total.....	25,049,441	13,613,181	11,436,260

NOTE.—A considerable proportion of the Indian Reserves and almost the entire area of the National Park, are timber lands, making approximately 800,000 acres not included in the above. There are also 358,368 acres within the Forest Reserves, upon which homestead entries or locations are pending adjudication by the Forestry Department, of which a large percentage is timbered lands not included in the above.

For Forest Reserve area of state, by counties and by reserves, see tables on pages 50 and 53.

LUMBERING AND FORESTRY IN OREGON.

By GEORGE M. CORNWALL, Editor The Timberman, Portland, Oregon.

The state of Oregon contains approximately, 496,048,000,000 feet of standing timber, or an amount equal to one-fifth of the standing timber of the United States. The principal species are Douglas fir (Oregon pine), spruce, hemlock, red and Port Orford cedar, sugar and yellow pine. The yellow pine is the predominating species of the section lying East of the Cascade range.

The cut of lumber in Oregon in 1911 approximated 2,000,000,000 feet.

There are 16,014,219 acres of land lying within the National Forests, of which it is estimated 2,401,039 are held by private interests through various titles. It is estimated the timber holdings of the Government aggregate over 136,488,000,000 feet.

Last year 21,285 carloads of lumber were shipped to various states in the Union and in Canada; the total cargo shipments were 583,927,694 feet. The remaining output of the mills was consumed locally. The lumber industry is yet in its infancy.

The value of the entire lumber product,

including lumber, sash and doors, boxes, poles and piling, approximated \$30,000,000. With the building of new railroads to traverse the timber belts of Western and Eastern Oregon, and the improvement of her ports, Oregon will within the next fifteen years probably be the largest producer of lumber of any state in the Union.

The abundant rainfall and deep rich soil of Western Oregon insures the best possible condition for reforestation. The present average growth of fir timber lying West of the Cascades, now being cut, is probably about 400 years. With suppression of fires, Nature, unassisted, will do her own reforesting and thus insure a perpetual crop of timber. Legislation bearing on forest protection is progressive and earnestly enforced.

The organization of voluntary forest fire patrols by individual owners, co-operating with state and federal authorities, has done much to safeguard the timber of Oregon from destructive forest fires, thus effectually protecting the state's most valuable asset.

SOME FOREST FACTS OF OREGON.

(From report of Oregon Conservation Commission, 1912.)

Oregon stands fourth in the list of lumber producing states, having advanced from twenty-third place in the last ten years.

The last census shows 34,722 people engaged in manufacturing industries in Oregon, of which 16,833, or 50%, are employed by the lumber industry.

Out of a population of 672,765 people in Oregon, 84,000, or one-eighth of the total population, is directly dependent upon the lumber industry. No other manufacturing industry in the state employs one-tenth as many men as this one.

Oregon's mills in 1910 cut 2,084,633,000 board feet of lumber, 319,894,000 shingles and 190,660,000 lath.

The value of the above was \$30,200,000, or 32.5% of the total value of manufactured products in the state.

Over \$70,000 of outside money is each day brought into Oregon by the lumber industry.

Over 80% of the value of Oregon's timber products is paid out for labor, taxes, rent, etc. The lumber industry pays out for wages a greater proportion

of the value of its product than any other industry.

The last census shows that out of 55 manufacturing establishments in Oregon employing over 100 wage earners, 33 were engaged in the lumber industry.

Oregon's timber pays a large part of the taxes of the state; in some counties the bulk of them.

Eighty per cent of our outgoing freight is lumber.

Oregon has one-fifth of the standing timber in the United States, or 545,800,000,000 board feet. (Includes some woodland area not embraced in statistics compiled by Oregon Immigration Commission.)

The value of this standing timber is not less than \$680,000,000, and when manufactured it will bring into the state for circulation at least \$6,822,500,000.

Already the revenue derived from Oregon's timber exceeds that from wheat, fruit, vegetables and fish combined, and cutting has hardly begun.

Oregon's timber area is approximately 25,000,000 acres of which about one-half is publicly and one-half privately owned.

TIMBER IN OREGON. (In Board Measure Feet.)

Privately Owned.

COUNTY.	Acres.	Feet.
Baker.....	240,000	18,000,000,000
Benton.....	120,180	8,000,000,000
Clackamas.....	94,280	10,000,000,000
Clatsop.....	500,000	20,000,000,000
Columbia.....	222,000	10,000,000,000
Coos.....	153,000	50,000,000,000
Crook.....	830,000	7,000,000,000
Curry.....	200,000	10,000,000,000
Douglas.....	1,500,000	40,000,000,000
Grant.....	450,000	2,500,000,000
Harney.....	150,000	10,000,000,000
Hood River.....	50,000	1,000,000,000
Jackson.....	850,000	22,000,000,000
Josephine.....	600,000	9,000,000,000
Klamath.....	500,000	20,000,000,000
Lake.....	500,000	10,000,000,000
Lane.....	1,249,840	50,000,000,000
Lincoln.....	375,000	15,000,000,000
Linn.....	400,000	10,000,000,000
Malheur.....	125,000	1,000,000,000
Marion.....	200,000	5,000,000,000
Multnomah.....	60,000	1,500,000,000
Polk.....	150,000	10,000,000,000
Tillamook.....	500,000	40,000,000,000
Umatilla.....	100,000	1,000,000,000
Union.....	250,000	2,000,000,000
Wallowa.....	450,000	55,000,000,000
Wasco.....	125,000	1,000,000,000
Washington.....	187,000	5,000,000,000
Wheeler.....	250,000	2,000,000,000
Yamhill.....	75,000	1,500,000,000
Total.....	11,436,280	357,000,000,000

In National Forest Reserves.

RESERVE.	Forest Area—Acres.	Feet.
Cascade.....	1,019,404	25,000,000,000
Crater.....	750,140	9,873,000,000
Deschutes.....	831,867	4,500,000,000
Fremont.....	779,779	7,000,000,000
Malheur.....	1,080,548	6,882,000,000
Minam.....	400,000	1,875,000,000
Ochoco.....	781,012	5,600,000,000
Oregon.....	1,030,568	14,000,000,000
Paulina.....	1,098,312	1,983,000,000
Santiam.....	595,540	10,000,000,000
Siskiyou.....	1,008,121	14,000,000,000
Umpqua.....	952,833	18,000,000,000
Siuslaw.....	545,003	2,000,000,000
Umatilla.....	487,310	2,680,000,000
Wallowa.....	1,013,647	3,675,000,000
Wenaha.....	429,682	5,200,000,000
Whitman.....	878,116	4,500,000,000
Total.....	13,613,181	136,488,000,000

	Acres.	Feet.
Timber privately owned.....	11,436,280	357,000,000,000
Timber in National Forest Reserves.....	13,613,181	136,488,000,000
Timber in National Parks and Indian Reserves.....	800,000	2,500,000,000
Grand Total.....	25,849,461	496,048,000,000

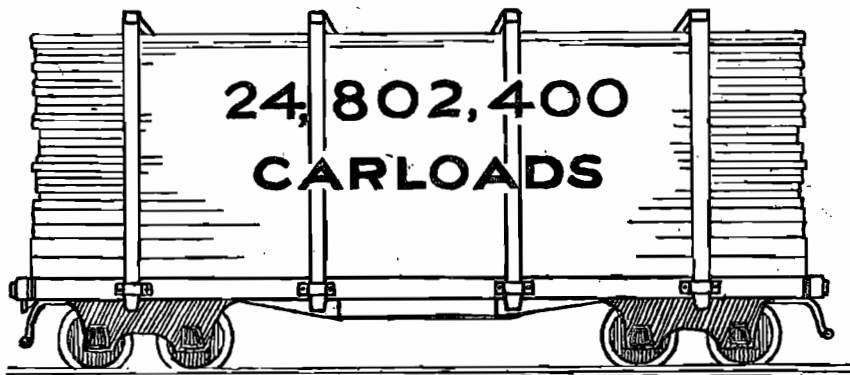
These totals do not include brush, wooded lots or miscellaneous forest not merchantable timber.

STANDING TIMBER IN OREGON, 496,048,000,000 FEET.

Cut into lumber, this timber would fill 413,373 trains of 60 cars each or 24,802,400 carloads.



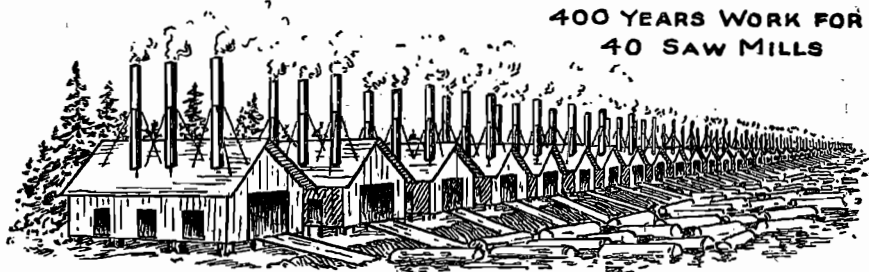
413,373 TRAINS
60 CARS EACH



24,802,400
CARLOADS

It would take 400 years for 40 sawmills, each sawing 100,000 feet of lumber a day, to cut this timber. Reforestation and natural growth would replace the timber so rapidly that, at the end of the 400 years, on the same acreage, there would be as much standing timber as there is today.

400 YEARS WORK FOR
40 SAW MILLS



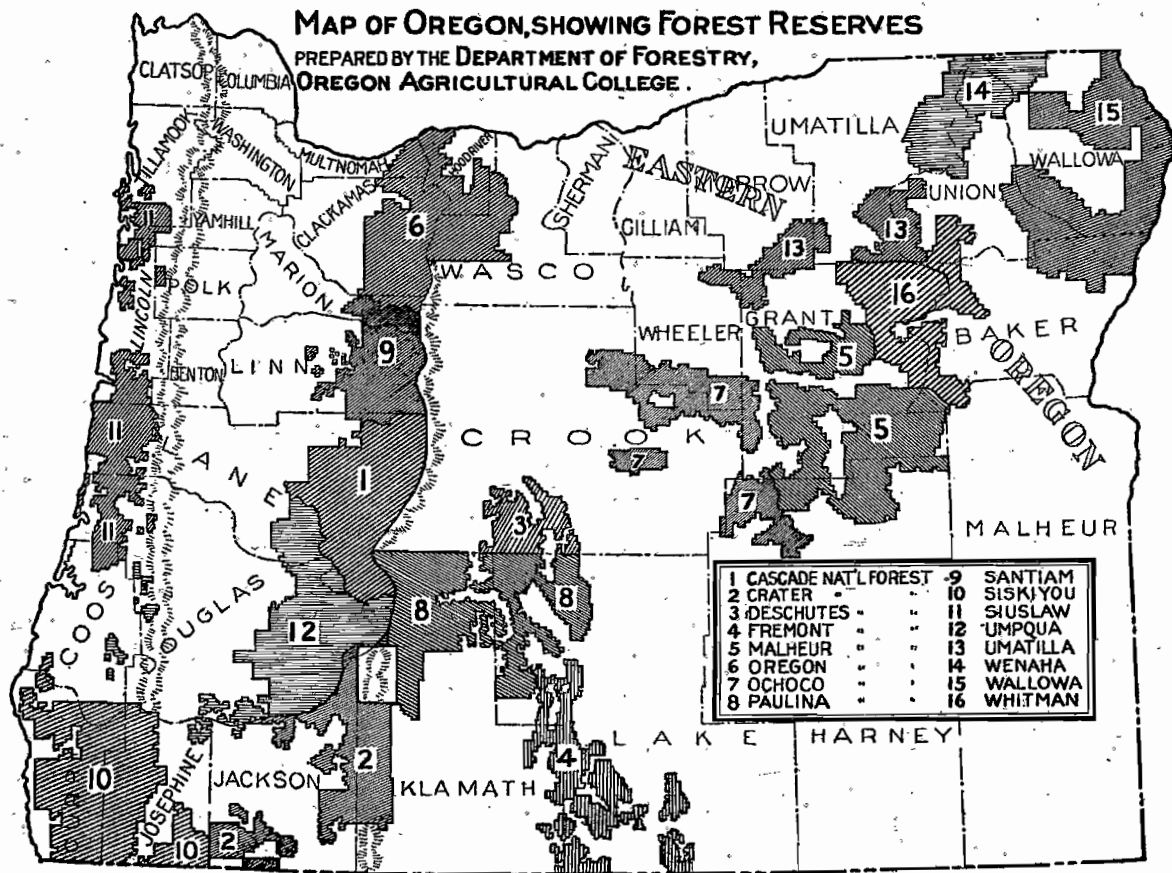
COMPARISON WITH OTHER NATIONAL FORESTS.

Standing timber in Oregon's forest reserves:

136,488,000,000 feet

In National Forest Reserves—all other states:

363,512,000,000 feet



OREGON'S NATIONAL FOREST RESERVES.

The total area of all lands within the limits of National Forest Reserves in the state of Oregon is 16,014,219 acres. Of this area 2,042,671 acres are in private ownership and 358,368 acres are pending entry and adjudication before the U. S. Forestry Bureau, leaving a net area of public lands within the reserves of 13,613,181 acres. Some of this land is suitable for agricultural purposes, and, when it is proven that the land is more valuable for agricultural than for forestry purposes, it will be admitted to homestead entry by the Forestry Service. All lands which have been cleared of their merchantable timber and are more valuable for agricultural than reforestation purposes, are open to homestead entry and every encouragement is given by the government to the settlement and improvement of same. The total timber content of the National Forest Reserves in Oregon aggregates 136,488,000,000 feet, board measure, which is being sold by the government at an average of between \$2.50 and \$3.00 per thousand feet, according to the value of the varieties of the timber. Of the amount of revenue received by the gov-

ernment from this source 25% of the net receipts is paid into the state treasury for apportionment among the counties of the state, in which forest reserves exist, for the benefit of the public schools and roads, and 10% is expended for the improvement of roads within the reserves. Grazing privileges for stock is also permitted by the Forest Service upon the reserves, for which a graduated scale of fees is charged per season, based upon the year long rate of 45 to 50 cents per head for cattle, 56 to 65 cents for horses, 25% to 40% less than the cattle rate for swine, and, when the quality of range and advantages for grazing cattle and sheep or goats are equal, the year long rate for sheep and goats is 15 to 16 cents per head. The year long grazing rate is higher on the coast forests because of better growth and comparatively longer seasons. The state also receives 25% of the net revenue from this source, which is apportioned among the counties and applied in the same manner as in the case of the timber sales fund, and 10% of the net receipts is applied to improvement of roads within the reserves. The gross receipts from timber sales within

NATIONAL FOREST RESERVES. (Listed by Reserves).

Showing Total Acreage Area of Each Reserve and Alienated Lands Embraced in Each, Classified as to Lands Upon Which Final Certificate, Patent or Grant Has Been Issued; Pending Entries or Locations, and Net Acreage Public Lands in Reserves.

Reserve.	Total Reserve Area.	Final Cert. Patent or Grant.	Pending Entries or Locations.	Net Area Land in Reserve.
Cascade.....	1,097,700	71,047	7,249	1,019,404
Crater.....	1,019,400	224,429	44,831	750,140
Deschutes.....	942,020	92,679	17,374	831,667
Fremont.....	852,000	66,452	5,769	779,779
Malheur.....	1,262,840	189,326	12,968	1,060,546
Minam.....	448,330	44,412	3,255	400,663
Ochoco.....	819,030	83,348	4,670	731,012
Oregon.....	1,141,120	103,291	7,233	1,030,596
Paulina.....	1,333,980	222,501	11,487	1,099,912
Santiam.....	710,170	112,040	2,580	595,540
Siskiyou.....	1,287,990	93,683	186,186	1,008,121
Siuslaw.....	821,000	248,386	27,612	545,003
Umpqua.....	1,193,439	236,094	5,712	952,633
Umatilla.....	666,920	77,618	1,892	487,510
Wallowa.....	1,097,670	70,204	13,819	1,013,647
Wenaha.....	472,000	40,633	1,656	429,692
Whitman.....	949,230	67,049	4,065	878,116
	16,014,219	2,042,671	358,368	13,613,181

Compiled from records on file in Department of United States District Forester, Portland, Oregon.
For timbered area of state, reserved and in private ownership, and timber contents of same, by counties and in reserves, see tables pages 48, 49 and 50.

the reserves in Oregon, July 1, 1911, to June 30, 1912, amounted to \$59,498.45, and for grazing privileges on the reserves, \$88,244.09, making a grand total of \$147,742.54. The number of cattle grazed on the forest reserves in Oregon during the fiscal year period ending June 30, 1912, was 82,344; horses, 11,380; sheep, 855,439; goats, 9; hogs, 74. There are also immense water power advantages in the national forests, which is being conserved for the benefit of the public, and title to which is never transferred outright to individuals or corporate interests. Development and utilization privileges of the water power resources of the forest reserves will be granted by the Forest Service, the annual charges for same, based upon the net electrical horsepower capacity, ranging from 10 cents per horsepower for the first year and rising upon a graduated annual scale to \$1.00 for the tenth year

and each succeeding year for each net electrical horsepower for a term of not to exceed 50 years, with privilege of renewal at expiration of period covered by the permit. Through government and state co-operation and the rigid enforcement of protective laws and a systematic and effective organization of forest patrol, the danger from fires has been materially reduced and all public interests within the reserves are carefully conserved. For any information desired regarding the Forest Service policy within the reserves, or regulations concerning grazing, timber or power utilization permits address George H. Cecil, U. S. District Forester for the District of Oregon, Beck Building, Portland, Oregon.

For table showing acreage in the several forest reserves in Oregon, by counties and by reserves and amount of standing timber in each, see below and on page 50.

FOREST RESERVES IN ACRES, LISTED BY COUNTIES, JULY 1, 1912.

Showing Status of Lands Embraced Within National Reserve Limits: Total Area by Counties; Total Area Upon Which Final Certificate, Patent or Grant has been Issued; Pending Entries and Net Area by Counties.

County.	Total Reserve Area.	Final Cert. Patent or Grant.	Pending Ent. or Locations.	Total Net Reserve Area.
Baker	517,618	60,953	5,125	451,540
Benton	800	160		640
Clackamas	621,910	54,260	1,095	566,555
Clatsop				
Columbia				
Coos	150,323	28,670	21,383	100,270
Crook	1,382,260	136,625	21,404	1,194,231
Curry	702,361	34,973	48,685	618,703
Douglas	1,170,253	236,853	14,016	919,384
Gilliam				
Grant	1,680,893	238,244	14,681	1,432,968
Harney	472,023	36,226	480	435,317
Hood River	212,248	19,388	4,008	188,762
Jackson	659,361	194,544	37,911	426,906
Josephine	534,247	53,074	111,069	370,104
Klamath	1,252,314	222,780	9,505	1,020,029
Lake	1,262,027	98,227	13,831	1,149,969
Lane	1,594,776	208,509	17,893	1,368,374
Lincoln	176,586	53,443	5,878	118,265
Linn	519,214	97,706	409	421,099
Malheur	599			599
Marion	211,530	13,486		198,044
Morrow	162,814	34,607	271	117,936
Multnomah	38,798	13,043		25,755
Polk	11,520		8,800	2,720
Tillamook	112,345	30,571	2,056	79,718
Umatilla	480,190	44,815	2,296	433,079
Union	520,915	31,030	607	489,278
Wallowa	1,202,380	73,564	14,835	1,113,981
Wasco	215,670	16,600	2,040	197,030
Washington				
Wheeler	178,348	14,524		163,724
Yamhill	9,896	1,745		8,151
Total	16,014,219	2,042,570	358,368	13,613,181

Compiled from records on file in Department of United States District Forester, Portland, Oregon.

MANUFACTURING IN OREGON.

By W. H. McMONIES, President Oregon Manufacturers' Association.

Oregon's manufacturing industries are gaining in importance each year. They are producing approximately \$100,000,000 worth of manufactured products annually, and yet Oregon has just started as a manufacturing state.

Oregon has nearly 2,500 manufacturing establishments of all sorts, giving employment to 40,000 people, who earn \$26,000,000 a year. In 1909 Oregon's factories utilized raw products valued at \$42,500,000.

The state's greatest industry is lumber and timber, Oregon ranking ninth among the states in the total cut of rough lumber in 1909. This industry alone gave employment to 16,000 men, or two-fifths of the factory hands in the state. Allied to the timber industry is the furniture manufacturing business. Native timber, together with foreign hardwoods that are unloaded from vessels in Portland harbor, give Oregon furniture manufacturers a variety of wood to select from and permit them to compete with Eastern manufacturers.

Flour and gristmill products rank second in importance in the state. In 1909 they had an aggregate value of \$9,000,000. The business has almost doubled since then. The "water level" haul down the Columbia is making Portland a great wheat center. It exports more wheat than any other port in the United States.

Dairy products are worth many million dollars each year and the industry is merely in its infancy.

More than \$5,000,000 has been invested in the meat packing industry in Portland in the last three years, and this is a business that is gaining in importance each year.

Oregon ranks high as a wool producing state, and in a few years her rivers will give support to many woolen mills. Wool which is now going East to be scoured will be cleaned here and then worked into various useful products. Oregon has the best water in the United States for scouring wool. Eight woolen mills are in operation in the state.

SUMMARY OF OREGON INDUSTRIES.

(U. S. Census 1910.)

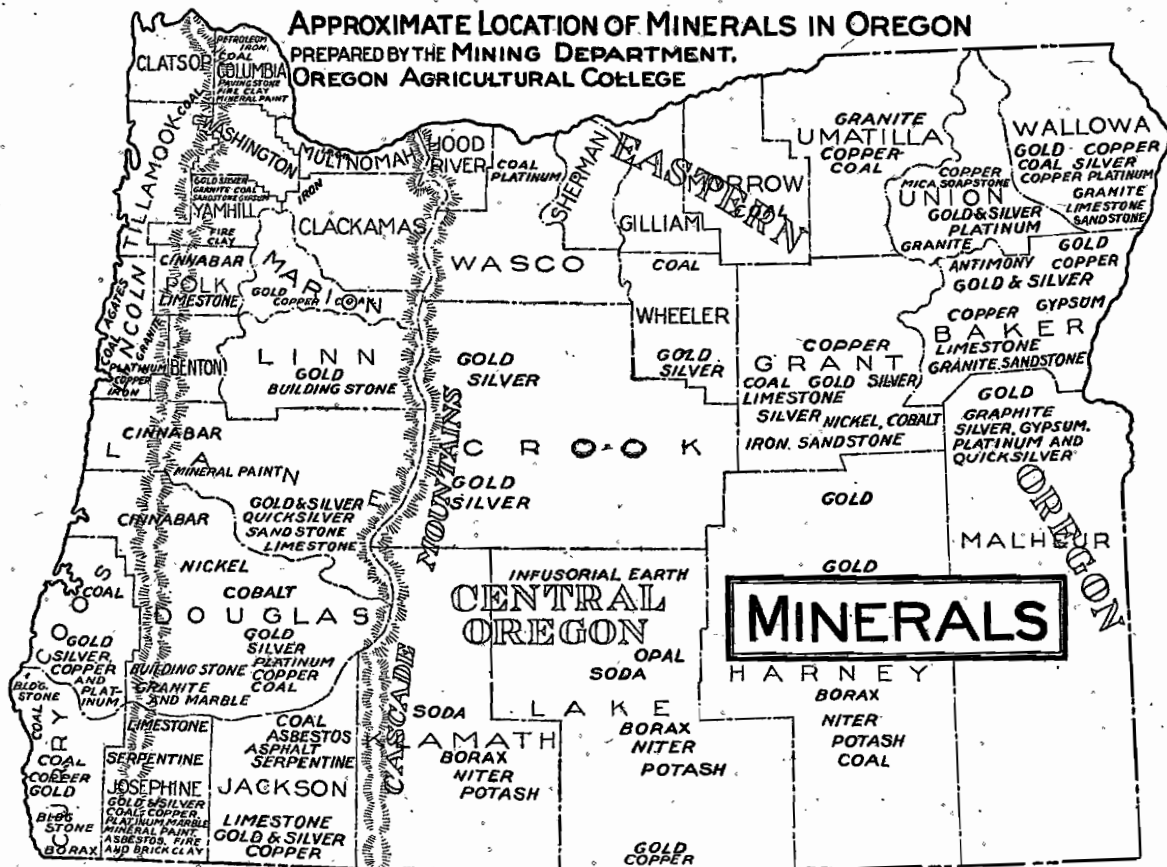
INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.	
		Average number.	Per cent distribution.	Amount.	Per cent distribution.
All industries.....	2,248	28,750	100.0	\$93,005,000	100.0
Lumber and timber products.....	713	15,086	52.4	30,200,000	32.5
Flour-mill and gristmill products.....	114	394	1.4	8,991,000	9.6
Slaughtering and meat packing.....	14	366	1.3	5,880,000	6.3
Printing and publishing.....	324	1,459	5.1	5,041,000	5.4
Butter, cheese, and condensed milk.....	95	420	1.5	4,920,000	5.3
Canning and preserving.....	71	661	2.3	3,207,000	3.4
Foundry and machine-shop products.....	82	1,055	3.7	3,135,000	3.4
Bread and other bakery products.....	151	613	2.1	2,829,000	3.0
Liquors, malt.....	18	204	0.7	1,857,000	2.0
Leather goods.....	48	353	1.2	1,629,000	1.8
Copper, tin, and sheet-iron products.....	39	431	1.5	1,611,000	1.7
Confectionery.....	19	283	1.0	1,215,000	1.3
Cars and general shop construction and repairs by steam-railroad companies.....	8	777	2.7	1,163,000	1.2
Clothing, men's, including shirts.....	5	544	1.9	1,105,000	1.2
Furniture and refrigerators.....	19	552	1.9	1,094,000	1.2
Woolen, worsted, and felt goods, and wool hats.....	8	469	1.6	929,000	1.0
Brick and tile.....	61	385	1.3	675,000	0.7
Shipbuilding, including boat building.....	24	212	0.7	477,000	0.5
Tobacco manufacturers.....	56	187	0.6	474,000	0.5
Stoves and furnaces, including gas and oil stoves.....	11	86	0.3	351,000	0.4
Mattresses and spring beds.....	7	83	0.3	350,000	0.4
Marble and stone work.....	23	76	0.3	297,000	0.3
Ice, manufactured.....	25	69	0.2	257,000	0.3
Leather, tanned, curried, and finished.....	8	49	0.2	244,000	0.3
All other industries.....	303	3,958	13.8	15,174,000	16.3

With the finest shipping facilities in the West, with river and rail and ocean transportation available, with a climate adapted to all sorts of manufacturing, with almost limitless water power and

with a territory 264,000 square miles in extent at "our back door," Oregon offers a splendid field for any manufacturer with ordinary business sense and spirit.

APPROXIMATE LOCATION OF MINERALS IN OREGON

PREPARED BY THE MINING DEPARTMENT,
OREGON AGRICULTURAL COLLEGE



A BRIEF OUTLINE OF OREGON'S MINERAL INDUSTRY.

By PROFESSOR H. M. PARKS, Bureau of Mines, Oregon Agricultural College.

The annual mineral production of Oregon now amounts approximately to \$4,000,000, an exceptional showing when we consider that Oregon has spent less effort in developing her mineral resources than any state west of the Rocky mountains. The products, in their order of importance, are: Building stone and clay products; the metals, gold, silver and copper; sand and gravel, coal, mineral waters and gypsum.

There is just now exceptional opportunity for profitable investment in plants producing clay products, cement and building stone. The consumption of these products within the state enormously exceeds the state's production. These structural materials are constantly imported into the state, entailing large waste in transportation charges.

The aggregate value of the mine production of gold, silver and copper in Oregon in 1910 was \$700,676. The production was derived from 180 mines, of which 116 were placers and 64 quartz mines. The metal mining industry in

the state of Oregon is now passing through a transitional period between the placer and the quartz mining stage, an incident in the history of most mining countries. The placer production for a number of years has been diminishing, while the production from the quartz mines is increasing, until in 1910, the deep mine production exceeded the placer production. Development work on deep mines in a few localities has been going on steadily for the past few years, with the result that Oregon now has a number of well developed properties which will very materially increase the gold production of the state inside of two years.

The two most important metal mining districts in the state are the Eastern Oregon Mining District, which comprises the counties of Baker, Crook, Grant, Harney, Malheur, Umatilla, Union, Wallowa and Wheeler, Baker County being the most productive in the state; and the Southwestern Mining District, comprising the counties of Josephine, Jackson, Lane, Douglas, Coos and Curry.

TRANSPORTATION—RAILROADS AND WATER.

By E. C. GILTNER, Secretary Portland Chamber of Commerce.

For such a large state, containing 95,607 square miles of territory (over 61,000,000 acres), and having a population of about 700,000, Oregon is well provided with transportation facilities.

The second greatest river in the United States is the border line between Oregon and Washington and boats go from Portland to The Dalles, 200 miles inland, during the entire year, and beyond The Dalles as far as Priest Rapids in Washington, and Lewiston, Idaho, on a branch of the Columbia, excepting about 90 days in the winter, owing to the low stage of water.

Lines operate on the Willamette river throughout the year to Salem, and excepting during low water, to Albany and Corvallis.

The project for the improvement of the Willamette so that boats can operate the entire year is now being examined into by government engineers.

Boats also operate to points in Washington on the Lewis and Cowlitz rivers, two branches of the Columbia river.

Regular service is maintained through-

out the year between Portland and San Francisco and between Portland and Oregon shore ports as far south as the Coquille river.

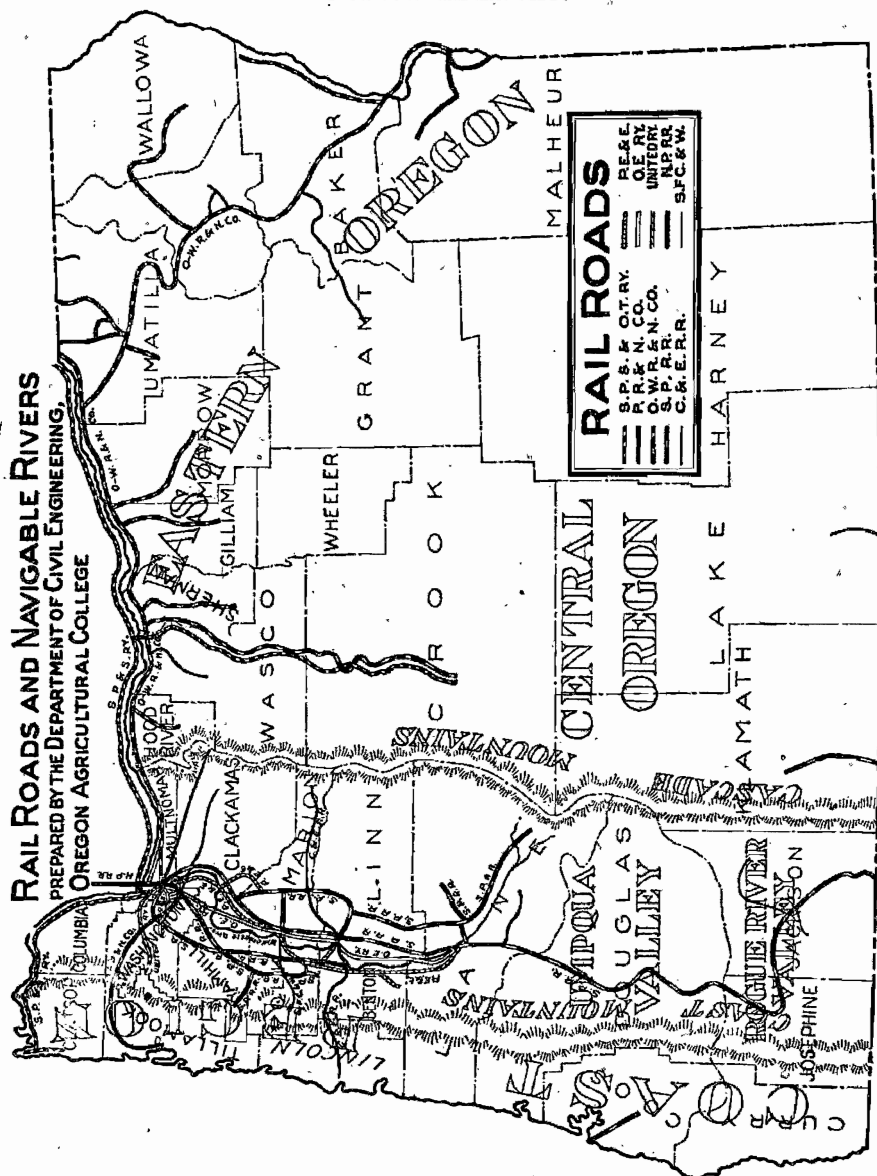
It is not beyond the probabilities that the Columbia river will be opened into Canadian territory in time, as the Canadian Government is investigating at considerable expense their end of such a project.

The following railway lines, given in alphabetical order, provide excellent transportation facilities throughout the state to the points mentioned therein, and by consultation with the railroad map of Oregon on page 38, the territory served by each is easily seen.

Coos Bay, Roseburg & Eastern Railroad, main line from Marshfield to Myrtle Point, 29 miles. Operated by Southern Pacific Railroad.

Corvallis & Eastern Railway, main line running East and West from Yaquina to Hoover, 140 miles. Operated by Southern Pacific Railroad.

Grand Southern Railroad, main line from The Dalles to Dufur, 30 miles.



Every railroad company doing business in Oregon pays special attention to the development of the dairy industry in the State and works thru all possible channels for its encouragement. Every transportation company has exceptional opportunities for the small farmer to engage in dairying. They make liberal provision for handling the products between railroad stations, creameries, condenseries, cheese factories and consumers of the products in the cities.

Great Northern Railway, which operates to all territory in Washington and Northern Idaho, including Puget Sound points, from Vancouver to Portland, 10 miles.

Mt. Hood Railroad, main line from Hood River to Mt. Hood, 16 miles. Operated by the Portland Railway, Light & Power Co.

Northern Pacific Railway, main line from Portland to Columbia river, being a part of the main line to all Washington territory, including the Puget Sound, and all of the principal points in Northern Idaho. Branch line from Pendleton to connect with main line in Washington, 83 miles. Joint ownership and operation of Oregon Electric, Oregon Trunk railway, and United Railways.

Oregon-Washington Railroad & Navigation Company main line runs East and West across the state from Portland to Huntington. Branch lines to Puget Sound and Grays Harbor points in Washington, to Bend in Central Oregon, to Shaniko, Condon, Heppner, Pilot Rock, Joseph and Homestead in Eastern Oregon. Branch lines run also to Spokane, Walla Walla, North Yakima and other cities and towns in Eastern Washington and Northern Idaho. Line now under construction across Central Oregon from Vale through Malheur and Crook counties. Total in Oregon, 737 miles.

Oregon Trunk Railroad, connects with Spokane, Portland & Seattle Railway Co. at Fallbridge, Wash., and after crossing the Columbia river, runs in a Southerly direction into Central Oregon; present terminus Berdt, 148 miles.

Oregon & Southeastern Railroad, main line from Cottage Grove to Wildwood, 20 miles.

Pacific & Eastern Railroad, main line from Medford to Eagle Point, 34 miles.

Pacific Railway & Navigation Co., main line from Hillsboro to Tillamook, 63 miles. Operated by Southern Pacific Railroad.

Southern Pacific, main line from Portland to California state line and a part of the through line to San Francisco and other California cities. The entire Willamette Valley served by branch and auxiliary lines, a large part of which will in the near future be operated by electric instead of steam power. Now has line under construction from Weed and Northern California to Springfield, Oregon, making a second main line to California. Branch line now under construc-

tion from Eugene to Coos Bay, 676 miles.

Spokane, Portland & Seattle Railroad, line from Portland to Astoria and Oregon seaside resorts, 119 miles. Its main line extends from Portland on the north bank of the Columbia river, through Eastern Washington to Spokane, where it connects with the Great Northern and Northern Pacific railways, forming a through line to the East.

Sumpter Valley, main line from Baker to Prairie City, 62 miles.

A new era is just opening in the way or electric lines mainly out of Portland, the **Oregon Electric** running from Portland to Eugene, with a branch to Forest Grove, 152 miles. Owned jointly by Great Northern and Northern Pacific Railroad.

The United Railways maintains a line from Portland to Wilkesboro, 28 miles. Owned jointly by Great Northern and Northern Pacific Railroads.

The Portland, Eugene & Eastern Railway. Northern terminal, Portland; southern terminal, Eugene. Total mileage 340. Main line follows Willamette river; Molalla division swings through rich hills on east side; west side line is an electrification of part of the Southern Pacific Company's steam lines. Operates street car systems in Salem, Albany, Corvallis and Eugene.

The Portland Railway, Light & Power Co., which owns the street railway system and street lighting system of Portland, runs interurban lines to Oregon City, Estacada, St. Johns, Fairview and Troutdale, 144 miles.

ROADS AND HIGHWAYS.

Having long ago awakened to the importance of good roads and their relation to the successful development of the agricultural resources of the state, the people of Oregon have expended much time, money and energy in the permanent improvement of the public highways, with the result that the roads of the state, generally speaking, in proportion to population, are fully up to the standard of other coast and Western states. Some counties have been more active than others, and many miles of their main traveled highways have been permanently improved with macadam. In recent years the enthusiasm has become statewide and an organized movement has been launched. It seeks the enactment of an equitable code of laws under which a uniform system of good roads building and maintenance will be in-

augurated, thus seeking the advancement of the agricultural interests of the state through the improvement of its highway transportation facilities. The total expenditures for road building and improvement in the state for the five-year period 1906-1911, inclusive, amounted to \$9,754,575.37 (with no report from

Sherman County for the year 1911), and the amount levied for road purposes for the year 1912 incomplete, will approximate \$2,000,000, making a total of \$11,754,757 for the six-year period, including special tax levies, aggregating \$975,178.98, which were made by several counties.

LABOR CONDITIONS IN OREGON.

By O. P. Hoff, Commissioner of Labor.

Although Oregon is largely undeveloped and regarded throughout the East as a new country, bristling with opportunity and overflowing with "milk and honey," the conditions that confront the laboring man here are very much the same as prevail in other states—undeveloped state of resources and industries and proportion of population taken into consideration.

Oregon's undeveloped resources are truly great and all that is claimed for them, but every ambition and advanced system of civilization known to the effete East exists in full flower in Oregon. There are no "bonanzas" of gold or silver merely awaiting the eye of the casual observer. Workingmen who come to Oregon with little except brawny arms and willing hearts and hands, will find little more to repay them here for the great expense of emigrating to the new country than they already have in a reasonably prosperous community in the East, Middle West, North or South. Manual labor is the same here as elsewhere. Salaried situations are no different. Wages compared to living expenses are so nearly similar to the average of other places as to warrant no boasting of our advantages in that respect. The thoughtful and fairly satisfied workingman should consider the matter seriously and investigate fully before making any change in his field of labor.

Large projects require many laborers, and often these spring up in Oregon, but the means of bringing workingmen here are just as rapid and cheap as in any

section of the country, hence it is not to be expected that wages are very much different. Oregon's advantages for laboring people, without sufficient accumulations to give them a start, are: A mild climate, certainty of crops, absence of damaging storms and opportunities as good as any other state.

With empty hands, I question if the emigrating workingman has much to gain over other places by coming to Oregon. If he, on the other hand, has been able to accumulate, say \$1,000 to \$2,000 to start with, he is then in position to take advantage of such opportunities as are offered by the state. During the harvesting season there is a demand for additional labor, as is also the case with extensive railroad building and extension work, but there are periods when many idle men are unable to find employment here as in other sections of the country.

The workingman who can expect to reap benefits from the conditions which exist in this state is he who can secure possession of a few acres of land and make a home, and such land must be procured by purchasing parts of subdivided farms or tracts of logged-off lands, which may be secured at from \$25.00 to \$40.00 per acre. It is a mistake to figure now on getting valuable government land even out here, although some is to be had, it is true, that will yield splendidly to the man who is willing to pay the price incident to the hardships of developing and improving it and putting up with the disadvantages of isolated living.

The laboring man can readily get a start in Oregon if he is willing to go into the country. There, high wages are paid for milkers, ranch hands and farm workers. The supply of labor in the country districts does not meet the demand. The wages paid for farm work are practically all clear gain, and if saved and put into a piece of land will soon enable the laborer to become a home owner and independent citizen.

OREGON: EDUCATIONAL AND SOCIAL.

By P. L. CAMPBELL, President Oregon State University.

No Western state is essentially less "Western," in the accepted sense of the term, than Oregon. Settlers from Eastern and Middle West states here find themselves in the midst of "home folks," familiar associations and the customary social and educational privileges. Oregon has been very largely opened up and developed by those stronger spirits from the East who have sought the state because of belief in its great special resources and in the unwonted opportunities it affords the individual for expressing himself both socially and politically. Remote valleys, as well as the

larger centers, boast their comparatively large university clubs and the marked culture of their citizens. Literary and social clubs, commercial and civic and welfare clubs, all kindred organizations, find in Oregon a fostering atmosphere. Oregon at once "feels like home" to a newcomer, more particularly because he unflinching finds here existence of the ideal he had in mind when he decided to try new fields. He finds the social, political and intellectual life of the state to be organic and inspiring to an unusual degree.

Educationally, both in its state and

OREGON SCHOOL ENROLLMENT.

Public Schools—School Year 1910-1911.

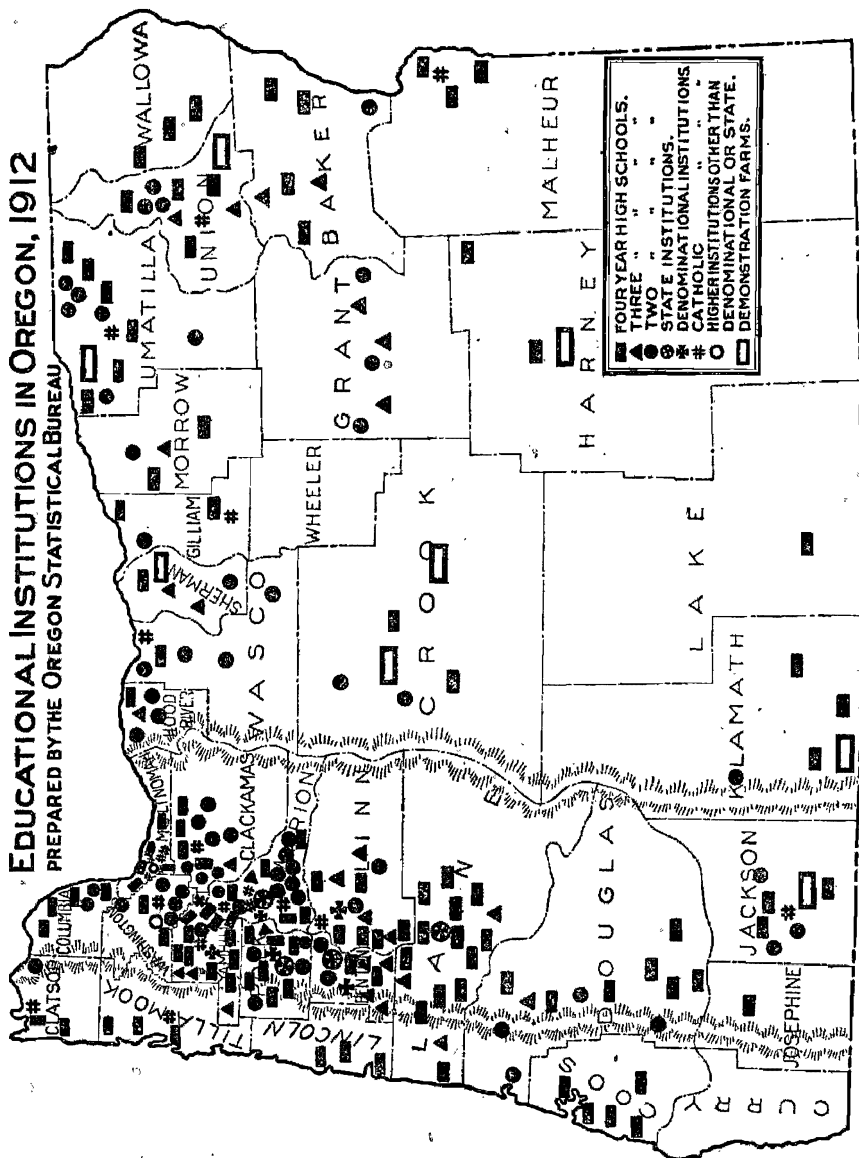
COUNTY.	Number of Children 4 to 20 Years.	School Enrollment			Total Enrollment.	Av. No. Days in School Year
		Primary.	Grammar.	High		
Baker.....	5,437	1,002	2,495	254	3,751	143.0
Benton.....	3,232	636	1,495	281	2,412	139.2
Clackamas.....	10,073	1,849	3,728	528	6,105	149.5
Clatsop.....	4,472	761	1,528	250	2,539	132.0
Columbia.....	3,283	682	1,474	63	2,219	147.0
Coos.....	5,678	1,200	2,704	200	4,104	127.5
Crook.....	2,424	500	1,064	100	1,664	135.0
Curry.....	701	80	317	50	447	122.8
Douglas.....	6,104	1,244	2,680	200	4,104	132.0
Gilliam.....	1,092	197	458	40	695	131.0
Grant.....	1,798	462	742	35	1,239	145.0
Harney.....	1,188	227	358	30	615	140.0
Hood River.....	2,069	417	940	125	1,482	150.0
Jackson.....	6,919	1,480	3,091	580	5,151	141.9
Josephine.....	3,164	586	1,492	200	2,278	144.7
Klamath.....	2,176	453	926	175	1,554	143.0
Lake.....	1,308	231	499	35	765	142.0
Lane.....	10,818	2,091	4,771	800	7,662	134.0
Lincoln.....	1,786	415	938	60	1,413	118.5
Linn.....	7,763	1,497	3,355	625	5,477	137.0
Malheur.....	2,545	563	1,196	115	1,874	132.0
Marion.....	12,204	2,116	4,535	900	7,551	143.0
Morrow.....	1,381	304	651	100	1,055	130.0
Multnomah.....	43,276	9,835	18,356	3,100	31,291	188.0
Polk.....	4,459	829	1,846	300	2,975	137.0
Sherman.....	1,000	209	453	50	712	149.1
*Tillamook.....	1,841	163	1,003	125	1,291	154.3
Umatilla.....	6,245	1,283	2,798	380	4,461	152.0
Union.....	5,515	1,070	2,321	475	3,866	143.0
Wallowa.....	2,851	537	1,273	150	1,960	128.0
Wasco.....	3,736	695	1,509	190	2,394	140.9
Washington.....	7,112	1,352	3,025	175	4,552	147.0
Wheeler.....	864	152	373	70	595	130.0
Yamhill.....	6,290	1,252	2,533	500	4,285	136.0
Total.....	180,798	36,380	76,907	11,261	124,549	141.0

*Estimated. Not segregated in report

Authority—County Superintendents' reports for school year 1910-1911.

EDUCATIONAL INSTITUTIONS IN OREGON, 1912

PREPARED BY THE OREGON STATISTICAL BUREAU



Oregon's educational system offers an opportunity for every class, from the kindergarten to the education that stands for culture. Co-ordinate with the system of the three R's are the manual training and trade schools of the larger cities. The crowning feature of its industrial education is the Oregon Agricultural College. It stands for the highest development of the rich agricultural resources of the state through an educated hand and head. It offers educational opportunities to all workers.

private institutions, Oregon is equally prepared to meet every need. Its State University at Eugene is an institution which bears the stamp of high scholarship and is an advantageous and safe university home for young men and women. The Oregon Agricultural College at Corvallis is "in harmony with the spirit and policy of the best land-grant colleges of the United States," and of special technical significance in a state whose interests are so largely those of agriculture or horticulture. Practical courses and professional training as well as theoretical knowledge are afforded

by both these state institutions of the higher learning, and their experts speak with authority upon a wide range of subjects.

The State Normal School, located at Monmouth, is an excellent training school for teachers, rich in historical associations and in fine traditions.

A number of independent colleges also make consistent claim for recognition on the basis of their meritorious contribution to the educational life of the state. These are Albany College, the Presbyterian school; McMinnville College, a Baptist institution; Pacific University,

HIGH SCHOOLS OF OREGON.

Statement Showing Enrollment and Attendance at High Schools of the State Segregated into City, County, Union, and Rural or District High Schools for School Year 1911-1912.

COUNTY.	Total.	HIGH SCHOOLS.						Rural or District.	
		City.		County.		Union.		Enroll- ment.	Attend- ance.
		Enroll- ment.	Attend- ance.	Enroll- ment.	Attend- ance.	Enroll- ment.	Attend- ance.		
Baker.....	375	310	294			40	31	25	22
Benton.....	316	205	177					111	75
Clackamas.....	264	264	205						
Clatsop.....	212	212							
Columbia.....	99	85	83					14	14
Coos.....	300	300	275						
*Crook.....									
*Curry.....									
*Douglas.....									
Gilliam.....	51	10	9	41	35				
Grant.....	44	44							
Harney.....	42	42	40						
Hood River.....	198	198							
Jackson.....	623	613	459					10	8
Josephine.....	211	205	161					6	6
Klamath.....	188	28	24	160	148				
*Lake.....									
Lane.....	988	853	825			100	85	35	28
Lincoln.....	75			75	60				
Linn.....	700					75		625	
Malheur.....	140	140	125						
Marion.....	908	740	725			18	16	150	140
Morrow.....	108	108	91						
Multnomah.....	3,292	3,292	3,091						
Polk.....	350	50						300	
Sherman.....	60	60	50						
Tillamook.....	134	89	74			40	34	5	4
Umatilla.....	418	399	334					19	15
Union.....	525	525	450						
Wallowa.....	168	93	76	75	64				
Wasco.....	230	200	180					30	25
Washington.....	203	203	164						
Wheeler.....	77	44	40					33	29
Yamhill.....	541	541	500						
Total.....	11,840	9,853	8,252	351	307	273	226	1,363	496

*Official reports not obtainable at time of publication.

at Forest Grove, which, although non-sectarian, is affiliated with the Congregational church; Willamette University, founded by Methodist missionaries in 1840; the new Reed College at Portland, an endowed independent institution; Pacific College, at Newberg, a Quaker school; Dallas College, under the care of the Evangelical church; United

Brethren College at Philomath; Mt. Angel College at Mt. Angel, and Columbia University at Portland, Catholic institutions; Milton College, in Eastern Oregon, and many other schools of academic and semi-collegiate grade.

The special state institutions for the training of the blind and deaf, at Salem, are well equipped and managed and

HOW OREGON RANKS EDUCATIONALLY.

In 1911 Oregon Employed More Teachers and Expended More Money, in proportion to population, as is Shown in the Following Comparison with Other States—1910 Census Figures.

STATE.	Male.	Female.	Total.	Salaries, Superintendents and Teachers.*	Total Expenditures.
Alabama.....	3,037	5,719	8,756	\$ 2,746,473.00	\$ 2,904,537.00
Arizona.....	142	709	851	695,106.00	1,000,628.00
Arkansas.....	4,453	5,099	9,552	2,708,367.00	3,187,083.00
California.....	1,669	9,800	11,369	10,430,698.00	18,210,747.00
Colorado.....	812	4,388	5,200	3,336,715.00	5,211,188.00
Connecticut.....	327	4,950	5,277	2,962,124.00	5,450,006.00
Delaware.....	136	857	993	411,520.00	604,796.00
District of Columbia.....	187	1,444	1,631	1,480,564.00	2,679,564.00
Florida.....	1,035	2,980	4,015	1,109,968.00	1,773,720.00
Georgia.....	3,069	9,556	12,625	2,158,356.00	4,419,596.00
Idaho.....	567	1,885	2,452	1,225,890.00	2,175,063.00
Illinois.....	5,438	23,946	29,384	17,287,771.00	34,036,195.00
Indiana.....	6,156	11,111	17,267	9,024,569.00	14,910,500.00
Iowa.....	2,689	24,909	27,598	8,335,917.00	12,767,210.00
Kansas.....	2,430	11,037	13,467	5,773,342.00	9,812,671.00
Kentucky.....	4,620	6,480	11,100	3,746,180.00	5,648,644.00
Maine.....	832	6,625	7,457	1,819,500.00	2,934,283.00
Michigan.....	2,508	15,479	17,987	8,622,071.00	14,596,819.00
Minnesota.....	1,811	13,346	15,157	7,369,244.00	13,724,437.00
Mississippi.....	3,162	7,004	10,166	2,136,126.00	2,728,248.00
Missouri.....	4,838	13,527	18,365	8,126,232.00	13,067,193.00
Montana.....	270	1,980	2,250	1,452,039.00	2,633,621.00
Nebraska.....	1,212	9,787	11,009	4,562,945.00	7,454,215.00
New York.....	5,281	39,793	45,074	86,651,566.00	51,861,986.00
North Carolina.....	3,185	8,031	11,216	2,245,974.00	3,037,607.00
North Dakota.....	1,285	6,102	7,387	2,501,102.00	4,549,660.00
Ohio.....	8,640	19,201	27,841	14,599,273.00	25,500,218.00
Oklahoma.....	2,482	6,991	9,473	3,864,871.00	6,739,218.00
OREGON.....	863	3,590	4,453	2,299,689.00	4,646,270.00
South Dakota.....	1,006	5,059	6,065	1,997,719.00	3,825,273.00
Utah.....	629	1,740	2,369	1,402,828.00	3,052,990.00
Wyoming.....	141	968	1,109	487,260.00	796,021.00
OREGON (1911).....	956	4,013	4,969	2,669,727.00	5,751,902.00

*Includes salaries of teachers only.

Oregon, ranking thirty-fifth in population, ranks twenty-third in amount of salaries paid to teachers and twenty-first in total expenditures for public school purposes, in the latter respect ranking ahead of the great states of Alabama, Arkansas, Florida, Georgia, Maine, Mississippi, North Carolina, North Dakota and South Dakota, each of which contains a much larger population. Oregon expends half as much as Kansas, having about three times the population, and over one-third as much as Minnesota, having over three times the population. In proportion to population Oregon ranks high among the states of the Union in money expended for public school purposes.

have both the confidence and esteem of the citizens.

The public school system of Oregon, including primary, grammar and high schools, is well organized and rapidly growing in efficiency. It is under most inspiring supervision from the State Superintendent down. Oregon ranks

near the top of the list in school attendance and general intelligence.

The newcomer will find in Oregon all that his past habits have led him to require for himself and his family, combined with the vital and refreshing "something more" which Oregon may claim as peculiarly her own.

SCHOOL CHILDREN'S INDUSTRIAL FAIRS.

By L. R. ALDERMAN, Superintendent of Public Instruction.

One of the most important movements for the development of our public schools, helping to bring about a more practical education for our children, and, indirectly, assisting in developing the resources of the state, which was demonstrated

and pronounced an unqualified success during the school year 1911-12, and which promises greater things for the future, is the introduction and encouragement of agriculture and animal husbandry in the public schools and the holding of

COST OF PUBLIC SCHOOLS.

School Year 1910-1911.

COUNTY.	Teachers' Salaries, School Year.	Total Expenditures, School Year.	Value of School Houses and Grounds.	Value of Furniture and Apparatus.
Baker.....	\$ 72,033.37	\$ 126,589.88	\$ 202,917.50	\$ 19,100.00
Benton.....	37,828.55	67,737.27	114,880.00	17,375.00
Clackamas.....	101,081.03	202,879.77	284,438.75	53,808.36
Clatsop.....	54,994.66	157,889.24	233,110.00	21,683.00
Columbia.....	41,829.19	78,815.76	116,337.60	19,397.35
Coos.....	76,956.99	123,693.69	328,760.00	28,421.00
Crook.....	41,008.40	61,179.84	54,235.00	12,983.00
Curry.....	11,113.80	12,484.44	9,520.00	2,784.00
Douglas.....	81,737.59	154,539.41	186,600.00	36,625.00
Gilliam.....	18,630.00	24,799.43	36,542.00	6,718.00
Grant.....	28,261.35	49,943.80	47,900.00	11,970.50
Harney.....	16,879.28	27,341.61	24,580.00	5,500.00
Hood River.....	34,846.75	81,871.84	100,038.00	11,300.00
Jackson.....	85,966.53	244,581.08	275,880.00	41,600.40
Josephine.....	46,480.96	122,406.91	155,500.00	40,000.00
Klamath.....	39,545.14	93,159.49	220,875.00	21,000.00
Lake.....	41,564.14	30,964.31	115,500.00	18,424.00
Lane.....	131,057.52	248,807.56	473,294.00	54,119.00
Lincoln.....	21,010.95	48,734.16	42,997.50	5,465.00
Linn.....	92,166.41	176,263.52	408,275.00	64,513.00
Malheur.....	38,034.05	74,322.13	102,636.00	10,660.00
Marion.....	139,724.76	377,864.84	446,530.00	57,009.60
Morrow.....	29,978.69	46,327.88	46,590.00	10,263.00
Multnomah.....	874,004.67	1,900,605.61	4,169,828.05	174,778.00
Polk.....	53,433.00	179,028.19	203,250.00	21,290.00
Sherman.....	22,024.08	35,847.33	35,566.75	9,065.20
Tillamook.....	28,693.86	49,679.33	53,509.00	11,041.70
Umatilla.....	104,121.52	200,499.60	593,035.00	40,458.44
Union.....	72,802.91	242,482.60	295,200.00	33,880.00
Wallowa.....	39,926.62	89,876.16	117,756.00	16,970.00
Wasco.....	48,747.22	97,369.00	152,214.00	21,073.45
Washington.....	76,176.99	125,446.04	180,484.85	32,269.50
Wheeler.....	12,230.00	22,921.61	20,075.00	5,500.00
Yamhill.....	69,746.18	233,459.12	260,000.00	35,000.00
Total.....	\$2,659,726.88	\$5,837,932.40	\$10,089,244.80	\$962,938.90

School Children's Industrial Fairs. Through the co-operation of the State Bankers' Association, the State Agricultural College, the Union Stock Yards of Portland, the commercial organizations and newspapers of the state, this department adopted the plan of industrial contests to be held in each county, the local prize winners to bring their exhibits to the State Fair for final contests. The State Board of Agriculture set aside \$1,000 and the livestock men, farmers and merchants and poultrymen donated prizes to the amount of \$2,500 for children's exhibits at the State Fair. Altogether the children took part in 88 fairs held in various parts of the state.

The value of prize lists amounted to about \$20,000. It is estimated that 75,000 children prepared exhibits for either county, district or state fairs. This work has not been a regular part of the school work, but rather the school has been used as a distributing center and through the schools the children have been encouraged to take up this work at home. The result was that one of the most attractive features of the State Fair this year was the children's industrial exhibits and this department is in receipt of thousands of letters from all over the state praising the Children's Industrial Fairs and asking us to continue the work next year.

TEACHERS IN OREGON SCHOOLS.

Public Schools—Year 1910-1911.

COUNTY.	Teachers.			Average Monthly Salary.	
	Male.	Female.	Total.	Male.	Female.
Baker.....	21	117	138	\$80.67	\$58.22
Benton.....	24	89	113	67.66	50.98
Clackamas.....	46	187	233	87.96	53.88
Clatsop.....	13	79	92	95.00	56.83
Columbia.....	18	74	92	72.60	55.50
Coos.....	25	100	125	69.20	51.41
Crook.....	27	89	116	69.62	58.45
Curry.....	11	26	37	65.00	55.00
Douglas.....	59	149	208	61.13	48.50
Gilliam.....	11	37	48	73.94	58.51
Grant.....	13	44	57	82.54	66.25
Harney.....	7	36	43	70.00	58.50
Hood River.....	9	51	60	91.50	66.00
Jackson.....	34	177	211	91.62	61.17
Josephine.....	16	38	104	68.00	51.25
Klamath.....	21	51	72	80.00	63.00
Lake.....	11	41	52	95.00	68.00
Lane.....	73	295	368	58.50	48.75
Lincoln.....	23	65	88	69.22	49.50
Linn.....	68	177	245	61.70	49.50
Malheur.....	15	59	74	84.00	58.40
Marion.....	46	226	272	76.35	53.40
Morrow.....	19	57	76	79.89	59.45
Multnomah.....	108	789	877	157.40	97.50
Polk.....	25	112	137	71.21	50.00
Sherman.....	7	43	50	87.28	58.62
Tillamook.....	14	55	69	69.80	58.26
Umatilla.....	44	165	209	85.64	62.81
Union.....	30	98	128	76.77	57.60
Wallowa.....	25	66	91	61.50	53.52
Wasco.....	11	96	107	90.22	57.19
Washington.....	30	130	160	71.25	55.25
Wheeler.....	13	25	38	70.40	55.00
Yamhill.....	40	140	180	66.50	50.00
Total.....	866	4,013	4,969	\$77.58	\$57.53

OREGON'S HEALTH STANDARD.

By DR. CALVIN S. WHITE, Secretary Oregon State Board of Health.

During 1911 there were 9,562 children born in Oregon; 400 more than in 1910.

During the same year 8,360 deaths occurred, or 3,202 more births than deaths.

At the first glance, this would seem to solve the problem for immigration bureaus, save for the fact that Oregon is an empire capable of supplying all the necessities as well as the luxuries for a population of millions.

No state in the Union offers such possibilities for living, not only comfortably but long. The mountain ranges furnish bounteous supplies of pure water and nearly every city of any size either has now or is procuring such supply.

Typhoid fever, the great example of water-born diseases, claimed only 115 victims in 1911, while six times that many died of the infirmities that are associated with old age.

Of tuberculosis, we cannot speak so reassuringly. Seven hundred and five deaths occurred from the "Great White Plague," or 11.5 per cent of all deaths.

While the drier sections of Eastern Oregon, and the higher altitudes seem to have a beneficial effect, the mortality rate illustrates the utter futility of the advanced patient seeking climate or locality to cure this scourge.

In all other diseases our death rate is low. The rapid immigration is one cause; the other and more potent is the abundance of all the comforts of life. The housing conditions of the congested Eastern centres do not concern us. There is room; there is good air, and no child in Oregon is shut in a back yard with a lawn of concrete and four dull walls to obstruct his view.

The oil used on our railroads, in our factories and in our buildings prevents the smoke nuisances of other cities. And there is the absence of dust and grime to clog one's lungs.

Tributary to Portland, two dairies are furnishing certified milk constantly under the supervision of the State Board of Health, and no city in the world has a better milk supply, either in purity or cleanliness.

Our infant mortality is almost incredibly low, and the boy or girl born in Oregon has every likelihood of attaining ripe old age.

Our taxpayers and legislators are most generous, and our institutions for the unfortunates are models, not only from the standpoint of sanitation but the humanitarian. We have produced some of the world's fastest horses, the world's greatest livestock, the world's greatest athletes. We have the climate; the air; the water; the food, and all other factors to make men and women live long and well.

Oregon ranks highest among the states of the Union in the low rate of mortality, the annual death rate for the year 1911, for Portland, where the official record is kept, being 9.47 per 1,000 of population. For the statistical period 1900-1905, the annual rate for Portland was 12.8 per 1,000, as against 19 in New York City; 17 in Kansas City; 18.4 in Albany, N. Y.; 20.7 in Pittsburg; 30.1 in Charleston, S. C.; 18.2 in Atlantic City; 22.6 in New Orleans; 20.9 in San Francisco; 22.9 in San Diego; 20.4 in Sacramento; 26.3 in Pueblo, Colo.; 18.1 in Portland, Me.; 20.6 in Washington, D. C.; 27.5 in Jacksonville, Fla.; 22.7 in Atlanta, Ga., and 26.1 in Savannah, Ga.

SCENERY AND GAME OF OREGON.

By WM. L. FINLEY, State Game Warden.

The appeal to sportsmen and lovers of outdoor life is as great in Oregon as in any other state in the Union. Our fir-clad hills, mountain lakes and rugged sea shore are recreation places for those who like hunting, fishing and camping.

The Cascade mountains, with their line of snow-capped sentinels, cut North and South through the center of the state. From the gorges of the Columbia south to the cavern-cut glaciers of Mt. Hood, Mt. Jefferson and the Three

Sisters, and on to the deep caldron of Crater Lake, lies a part of the greatest forest ever traversed by man. Here the hunter finds deer abundant in the higher meadows. An angler does not have to be expert to catch his limit of fish and the trapper may match his skill against the cunning of the lynx, cougar and the timber wolf.

Westward from the Cascades across a hundred fertile valleys which lie in the dip between the two ranges are the Coast

GOOD DRINKING WATER.

Mountain water, the purest imaginable, sparkling, cool and delicious, is obtainable in cities and towns having water systems. There are springs or clear mountain streams in every portion of the state, except in some of the high plateaus. Well water is obtainable within a few feet of the surface nearly everywhere. There are a few places in Eastern and Central Oregon where it is necessary to bore deep for water, but the lands there are correspondingly cheaper. On the whole, no other state in the Union has such an abundant supply of ideally pure drinking water. The conditions are incomparably more favorable than exist in any state east of the Rocky mountains.

PRIVATE SCHOOLS IN OREGON—1911.

Number of Pupils Attending, Male and Female, and Number of Teachers Employed.
(Primary, grammar and high school grades—colleges not included.)

COUNTY.	PUPILS.			Teachers Employed.
	Male.	Female.	Total.	
Baker.....	119	182	301	12
Clackamas.....	150	200	350	12
Clatsop.....	24	63	87	5
Coos.....	23	28	51	5
Crook.....	1	1	2	1
Douglas.....	20	30	50	5
Gilliam.....	22	26	48	3
Lane.....	44	44	88	5
Linn.....	107	156	263	16
Malheur.....	8	4	12	2
Marion.....	454	445	899	58
Multnomah.....	1,501	2,007	3,508	208
Polk.....	64	60	124	8
Tillamook.....	36	51	86	3
Umatilla.....	153	174	327	21
Union.....	111			
Wasco.....	60	90	150	6
Yamhill.....	65	70	135	9
Total.....	2,882	1,905	4,787	382

mountains. These are not less attractive to the adventurer. The innumerable waterways are filled with Rainbow and Cutthroat trout and Chinook and Silver-side salmon.

In no other state in the Union can one find such a variety of game birds as in Oregon. The bird par excellence for the upland shooter is the Chinese pheasant, a species introduced in the early eighties. This bird is now as much of a native in our valleys and hills as is the duck that waddles in the Wapattoo marsh. On a trip of 25 miles through the Willamette Valley I counted 44 pheasants from the car window. In no city in the land can one find as many game birds as in Portland. As the city has extended its limits the birds have not been driven out, but many of these remain throughout the year in the residence section.

In addition to the Chinese pheasant, ruffed and blue grouse, California or valley quail and mountain quail are abundant. The Easterner who is used to "bob white" will find these birds more abundant in Oregon than in many of the Eastern states. They were introduced here many years ago. Eastern Oregon is the home of the prairie chicken, sage hen and Franklin's grouse (fool hen).

The lake region of Southern Oregon is the greatest breeding ground on the Pacific Coast for all kinds of wild fowl—mallards, canvasbacks, pintails, shovellers, redheads, blue-bills, ruddy ducks and wood ducks, as well as cinnamon, blue-winged and green-winged teal. On the lakes and rivers are many wading birds such as snipe, plover, sandpipers, curlew. The migrations bring untold numbers of swan, geese and other wild fowl.

TAXATION IN OREGON.

By CHARLES V. GALLOWAY, Member State Board of Tax Commissioners.

In Oregon the county is the unit for assessments, and valuations of all property, both real and personal, are made annually. The county assessor is an elective officer, his term being four years. All assessments of property are made on the basis of ownership and value as of March 1st each year.

The law requires that valuations of all property for assessment purposes shall be made on the basis of actual cash value. But, as is usually the case, ratios of assessed to actual value in the several counties vary rather widely.

The Board of State Tax Commissioners, consisting of the Governor, Secretary of State, State Treasurer and two commissioners, assesses the property of nearly all public service companies doing business in this state, and apportionments such assessments or valuations among the counties in or through which the companies operate. Taxes are levied against this class of property and collected in the same manner as other taxes are levied and collected in the county.

The general property tax system is in vogue in Oregon and, with very few exceptions, all property, both real and personal, is taxed for state and local purposes. About four-fifths of the revenue required for state purposes is obtained through direct taxation. The remainder is derived from taxes on insurance companies, corporation licenses and fees, inheritance taxes and sundry items. Apportionment of direct state taxes to be collected from the counties is made by

the Board of State Tax Commissioners, after equalizing and adjusting to a common basis each year the totals of the assessment rolls of the several counties.

The County Board of Equalization, consisting of the County Judge, County Clerk and Assessor, meets on the third Monday of October each year for the purpose of reviewing and equalizing the county assessment roll. This board remains in session one month, unless its work is completed within a shorter time. All levies are extended on the tax roll in the month of January, and taxes are due and collectible on the first Monday of April following. If not paid by that time they become delinquent. However, if one-half of the taxes against any particular parcel of real property are paid on or before that date, the time for payment of the other half is extended to the first Monday of October following. A 3 per cent rebate is allowed where taxes are paid on or before March 15, prior to the date when such taxes would become delinquent. The Sheriff is the tax collector in each county of the state.

Much interest is now being manifested in matters of taxation in Oregon, and many measures proposing changes in policies and methods are being submitted to the people through the initiative. While we are, of course, unable to foretell the result of this agitation, it seems certain that important modifications of our general tax system are impending.

TAXATION STATISTICS OF OREGON.

COUNTY.	Total Valuations.	General Tax Rate	General State, County and School Fund.	Special Road Fund.	Special School Fund.	Special City and Town.	Special Port and Dike Fund.	Total General and Special Taxes.
Baker.....	\$ 23,555,693.00	\$0.105	\$ 247,334.77	•	\$ 74,391.77	\$ 41,858.72	•	\$ 363,385.26
Benton.....	10,050,481.00	•	•	•	•	•	•	•
Clatsamas.....	26,319,619.53	.0175	480,592.31	\$ 56,383.21	102,880.27	•	•	619,865.79
Clatsop.....	9,629,361.00	.0264	254,209.48	56,462.80	•	66,351.18	\$ 4,348.24	381,371.70
Columbia.....	14,834,181.00	.0106	155,768.90	82,445.00	48,030.01	13,103.89	•	299,337.77
Coos.....	19,694,797.00	.0175	344,658.05	38,036.65	90,474.95	46,016.37	25,401.95	544,678.77
Crook.....	9,178,248.00	•	•	•	•	•	•	•
Curry.....	3,986,137.00	.012	47,533.64	977.46	3,736.37	•	1,832.80	54,379.77
Douglas.....	33,128,854.00	.0135	446,377.31	93,477.04	97,425.72	38,737.76	•	676,017.83
Gilliam.....	9,809,548.00	.006	58,857.45	•	14,773.54	9,541.65	•	83,172.64
Grant.....	5,917,436.00	.0199	118,289.95	•	29,036.92	2,284.25	•	149,608.12
Harney.....	7,375,576.00	.013	95,681.76	•	18,405.60	1,299.00	•	115,586.36
Hood River.....	12,099,755.00	.0106	127,743.07	18,068.85	44,052.58	10,334.49	•	201,093.49
Jackson.....	38,023,655.00	.011	418,314.94	76,057.31	168,232.01	174,349.21	•	834,053.47
Josephine.....	10,585,606.00	.0178	189,117.85	•	45,578.61	28,160.40	•	262,846.86
Klamath.....	14,612,775.00	•	•	•	•	•	•	•
Lake.....	8,383,101.00	.01145	96,115.04	•	11,622.55	4,561.94	•	112,299.53
Lane.....	37,510,240.00	.0129	487,642.75	39,982.42	124,135.80	127,553.27	16,422.98	795,737.22
Lincoln.....	9,992,734.00	.0109	106,625.62	42,939.35	27,154.68	9,632.97	8,149.68	194,522.48
Linn.....	25,353,525.00	•	•	•	•	•	•	•
Malheur.....	11,510,887.00	.0124	137,775.00	•	47,870.45	25,102.39	•	210,747.75
Marion.....	42,322,201.00	.0138	587,007.14	58,376.06	161,467.11	133,482.88	•	838,332.19
Morrow.....	11,761,277.00	.007	82,328.94	•	37,243.60	5,221.36	•	124,793.80
Multnomah.....	324,440,395.00	.0101	3,276,848.07	•	1,553,870.10	2,049,045.12	475,178.24	7,654,941.53
Polk.....	15,240,846.00	.01508	229,612.67	7,147.69	47,598.61	22,165.02	•	306,551.99
Sherman.....	8,710,995.00	.0075	65,027.42	10,148.15	25,427.39	7,218.51	•	107,819.47
Tillamook.....	14,603,255.00	.0174	255,448.42	•	42,637.05	10,267.76	27,679.47	336,032.70
Umatilla.....	47,443,011.00	.0045	205,748.57	•	•	•	•	205,748.57
Union.....	17,226,615.00	.014	241,172.61	•	87,366.30	54,381.90	•	383,220.81
Wallowa.....	11,624,608.00	.0111	129,166.54	•	32,619.00	18,577.10	•	180,362.64
Wasco.....	12,343,120.00	.0161	197,717.40	6,539.88	54,936.97	17,845.04	•	277,039.29
Washington.....	19,230,718.00	.0204	392,306.65	3,117.17	54,428.61	13,401.56	•	463,254.29
Wheeler.....	3,267,018.00	.015	49,027.89	•	6,392.00	791.93	•	56,212.72
Yamhill.....	15,229,925.55	•	•	•	•	•	•	•
Total.....	\$84,231,169.08	\$0.01173	\$9,504,538.11	\$583,172.44	\$3,351,800.77	\$2,934,303.55	\$559,013.54	\$16,932,828.41

*Reports not completed in time for publication. Estimated general and special taxes for counties not reported, \$1,450,499.08, making grand total of all general and special taxes \$18,383,327.49. This makes a tax collection of \$2.08 for every \$100 of assessed valuation, or less than 21 mills. The per capita tax paid is \$28.12.

OREGON STATE OFFICIALS.

The list of state officials given herewith is furnished for the convenience of those who desire special information concerning departmental regulations. Communications addressed to them will be given prompt and courteous attention.

Governor—Oswald West, Salem.
Secretary of State—Ben W. Olcott, Salem.
State Treasurer—Thomas B. Kay, Salem.
Attorney General—A. M. Crawford, Salem.
Superintendent of Public Instruction—L. R. Alderman, Salem.

State Printer—Willis S. Duniway, Salem.
Supreme Court—Robert Eakin, chief justice; associate justices, Henry J. Bean, Thomas A. McBride, George H. Burnett, Frank A. Moore; clerk, J. C. Moreland; official reporter, Frank A. Turner; bailiff, P. H. Raymond.

Oregon Dairy and Food Commissioner—J. W. Bailey, Portland.

Commissioner of Labor Statistics, Etc.—O. P. Hoff, Salem.

Insurance Commissioner—J. W. Ferguson, Salem.

State Game Warden—W. L. Finley, Portland.
Master Fish Warden—R. E. Clanton, Portland.
Superintendent of Banks—Will Wright, Salem.
State Bank Examiner—Wm. H. Bennett, Salem.
State Engineer—John H. Lewis, Salem.
State Land Agent—T. A. Rinehart, Salem.
Clerk of State Land Board—G. G. Brown, Salem.

Adjutant General—William E. Finzer, Portland.
State Veterinarian—W. H. Lytle, Pendleton.
State Health Officer—Dr. Calvin S. White, Portland.

State Biologist—Albert R. Sweetzer, Eugene.
State Bacteriologist—Emile Francis Pernot, Portland.

State Sheep Inspector—W. H. Lytle, Pendleton.
State Librarian—Edna M. Hawley, Salem.
Secretary Oregon Library Commission—Cornelia Marvin, Salem.

State Printing Expert—R. A. Harris, Salem.
State Board of Education—Governor, Secretary of State and Superintendent of Public Instruction, L. R. Alderman, secretary, Salem.

State Land Board—Governor, Secretary of State, State Treasurer; G. G. Brown, clerk of board, Salem.

Railroad Commission of Oregon—Clyde B. Aitchison, Thos. K. Campbell, Frank J. Miller, commissioners; H. H. Corey, secretary, Salem.

Board of State Tax Commissioners—Governor, Secretary of State, State Treasurer and Commissioners J. B. Eaton and Chas. V. Galloway. Secretary, C. L. Starr, Salem.

Desert Land Board—Governor, chairman; Secretary of State, State Treasurer, Attorney General, John H. Lewis, state engineer. Clerk of board, H. C. Brodie, Salem.

State Board of Medical Examiners—Harry F. McKay, president; E. B. McDaniel, secretary; Herbert S. D. Nichols, Portland; F. E. Moore, LaGrande, and H. L. Henderson.

State Board of Pharmacy—F. H. Caldwell, president, Ontario; Kittle W. Harbord, secretary, Salem; R. L. Hunt, Baker; Leon B. Haskins, Medford; J. Lee Brown, Marshfield.

State Board of Dental Examiners—Jean Cline, president, Portland; H. H. Olinger, secretary, Salem; Frank Vaughan, Astoria; W. S. Kennedy, The Dalles; Clyde Mount, Oregon City.

State Board of Health—E. A. Pierce, president, Portland; C. S. White, secretary and state health officer, Portland; E. B. Pickel, Medford; W. B. Morse, Salem; Andrew C. Smith, Portland; Alfred C. Kinney, Astoria; C. J. Smith, Portland.

Oregon Statistical Bureau—J. A. Bezell, director, Corvallis, Oregon.

Oregon State Board of Examiners in Optometry—E. O. Mattern, president, Portland; C. W. Lowe, Portland; Herman W. Barr, secretary, Salem.

Barbers' Board of Examiners—H. G. Meyer, president, Salem; T. M. Leabo, secretary, Portland; R. R. Wallace, Astoria.

Oregon State Veterinary Medical Board—F. T. Nofs, president, Baker; J. F. Morel, secretary, Corvallis; B. M. Weller, Eugene; W. S. Eddy, Oregon City; W. H. Lytle, Pendleton.

Board of Sheep Commissioners—A. K. Smythe, president, Arlington; Herbert Boylen, secretary, Pilot Rock; Charles Cleveland, Gresham.

State Board of Immigration Commissioners—Thomas C. Burke, Baker, chairman; W. E. Coman, John M. Scott, Portland; A. F. Hofer, Jr., Salem; C. C. Chapman, state immigration agent, Portland; Marshal N. Dana, secretary, Portland.

Oregon Conservation Commission—Joseph N. Teal, chairman, Portland; F. G. Young, secretary, Eugene; C. B. Watson, Ashland; Mrs. Josephine Hirsch, J. C. Stephens, B. F. Irvine, C. S. Chapman, Portland; Wm. Pohlman, Baker.

State Horticultural Society—J. L. Carter, Hood River; L. T. Reynolds, Salem; H. C. Atwell, Forest Grove.

State Board of (Water) Control—John H. Lewis, state engineer, Salem; James T. Chinnook, division No. 1, Salem; Geo. T. Cochran, division No. 2, LaGrande; Robert Eakin, Jr., clerk, Salem.

State Board of Horticulture—Wilbur K. Newell, president, state at large, Dilley; H. M. Williamson, secretary, Portland; James H. Reed, Lafayette; C. A. Park, Salem; A. H. Carson, Grants Pass; R. H. Weber, The Dalles; Judd Gear, Cove.

State Board of Forestry—Governor, chairman, Salem; F. A. Elliott, state forester, Salem; L. S. Hill, Cottage Grove; A. P. Sprague, George H. Cecil, Portland; Austin Buxton, Forest Grove; Dan P. Smythe, Pendleton.

State Board of Fish and Game Commissioners—W. L. Finley, state game warden, Portland; R. E. Clanton, master fish warden, Portland; C. F. Stone, Klamath Falls; George H. Kelly, Eugene; J. F. Hughes, Gold Hill; M. J. Kinney, Portland; C. K. Cranston, Pendleton.

Panama Pacific Exposition Commission—Julius L. Meier, president, Portland; Lee M. Travis, Eugene; F. P. Bodison, Baker.

State Purchasing Board—Governor, Secretary of State, State Treasurer; C. D. Frazer, state purchasing agent, Salem.

State Board of Examination and Registration of Graduate Nurses—Miss Frances McLane, Miss Helen E. Jones, Portland; Miss Olive E. Osborne, Medford.

State Board of Agriculture—J. Henry Booth, president, Roseburg; Frank Meredith, secretary, Salem; G. W. Warren, Warrenton; H. W. Hatch, Salem; N. C. Maris, Portland; W. A. Jones, Joseph.

Except for special information desired direct from any one department, address inquiries to C. C. Chapman, State Immigration Agent, Portland, Oregon.

PACIFIC COAST REGION.

(Temperature averages for the Section).

Astoria—July maximum 68°; minimum 54°. January maximum 46°; minimum 32°.
Newport—July maximum 65°; minimum 49°. January maximum 52°; minimum 35°.
Bandon—July maximum 64°; minimum 54°. January maximum 50°; minimum 41°.

CLATSOP COUNTY.

Northwest corner of state; on Pacific Ocean; on Columbia river.

County Seat—Astoria.

Population—16,106 (U. S. census 1910), 65% American born. Of the foreign born one-half is Scandinavian and the balance is composed of German, English, Irish, Canadians and Austrians.

Transportation—Astoria & Columbia River Railroad (S. P. & S.) traverses northern portion of the county from the east to the Pacific Coast. Columbia river on the north boundary and Pacific Ocean on the west. First class rail and water service to all ports and markets of the coast and foreign countries and on the mainland.

Water—Columbia, Nehalem, Young's, Lewis & Clark and Necanicum rivers and other small streams afford plentiful water supply and power facilities.

Timber—Natural forest growth, of which there is a great wealth of merchantable timber, consists principally of hemlock, fir, spruce, cedar and larch.

Minerals—Lignitic coal is found in southeastern part of the county, but is undeveloped.

Land—Surface: Level, rolling and mountainous; sloping from elevations of 1,000 feet to sea level. Soils: Bottom lands rich in humus. Especially adapted to hops, alfalfa, buckwheat, barley, clover, mustard, rye, oats, sunflowers, wheat, grasses, corn and kale. That of hilly sections well supplied with essential elements. Loganberries, blackberries, raspberries, currants and strawberries grow luxuriantly. All kinds of vegetables do well on this soil under proper management. Average value farm lands \$35.09 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Salmon fishing and packing, farming, lumbering and dairying.

While salmon fishing and packing is the leading industry of the county, some of the largest salmon packing plants on the coast being located on the Columbia river within its boundaries, all lines of agricultural activity are being pursued and particular efforts are being put forth in dairying and diversified farming.

Wood is chief fuel used and costs \$2 to \$5 per cord.

Average daily wage for skilled labor is \$3.70; unskilled \$2.

For information address: Astoria Chamber of Commerce; Warrenton Development League; Seaside Commercial Club; Hammond Development League.

Newspapers will send copies: Astorian, Budget, Weekly Leader, Lannen Uutiset (Finnish Weekly), Astoria; Weekly Signal, Seaside.

CITIES, TOWNS AND VILLAGES.

Astoria—(County Seat)—Altitude 10 to 250 feet, Population 9,599 (U. S. census 1910); local estimate 15,000. On line of Astoria & Columbia River Railroad and on Columbia river with harbor facilities for extensive deep sea and coastwise ocean traffic. The principal industries of the city proper are salmon fishing and packing—the chief center of this great and growing industry in the state—lumbering and shipping. Those of the surrounding country are dairying, general farming and diversified farming with dairying chief in importance. Soils and climatic conditions of tidelands, bottoms and hill lands are well adapted to dairying and diversified farming. City has improved streets, electric lights, good water and sewerage systems, high and graded public schools and 16 churches, including Baptist, Catholic, Congregational, Episcopal, Lutheran, Methodist and Presbyterian. City owns gravity water works system; electric lighting and power

Notes to Table on Page 76.

The per capita bank deposits of the state, as represented in all of the banks of the state, September 4, 1912, was \$160.47, based upon the state's population of 672,765 (U. S. census 1910) and an aggregate deposit of \$107,980,708.11, as against a per capita wealth of \$153.33, September 1, 1911. The

circulation per capita of the state, as represented by circulation funds in all banks of the state, September 4, 1912, was \$163.69, computed upon the basis of the 1910 census population and circulation funds aggregating \$110,137,061.61, as compared to a per capita of \$155.75, September 1, 1911, and circulation funds amounting to \$104,785,223.83.

plant is under private ownership. Astoria Regatta, notable social and festal event, in which aquatic sports, amusements and feats of skill predominate in the features of entertainment, is held annually in August.

New Astoria—Altitude 12 feet. Population 957. On line of Astoria & Columbia River Railroad and the Columbia river. Has graded public school and one church, Methodist. Principal industry is salmon fishing.

Seaside—At sea level. Population 1,121 (U. S. census 1910). Western terminus of Astoria & Columbia River Railroad and on the Pacific Ocean. Is one of the most popular resorts on the North Pacific Coast where thousands from the interior spend their vacations. The principal industries of the contiguous territory are lumbering and manufacturing. Has good streets, sewerage system and other improvements and city owns gravity water works system; electric lighting plant is under private owner-

ship. Has high and graded public schools and three churches: Catholic, Episcopal and Methodist Episcopal.

Warrenton—At sea level. Population 339 (U. S. census 1910). On line of Astoria & Columbia River Railroad and on Young's Bay, near mouth of Columbia river. The principal industries in and contiguous to the community are fishing, logging, lumbering, (manufacturing) and farming. Truck gardening is a profitable industry here; beach resorts, an army post, and the city of Astoria furnish a good market for all products. Cranberry culture on tideflats and marsh lands engaged in extensively in vicinity. Has graded public school and two churches: Episcopal and Methodist Episcopal.

Other Towns in County—Westport and Wauna, on Columbia river, sawmill towns; Knappa, Svenson and Olney. Soil and climate especially adapted to dairying, berry raising and truck gardening. Svenson is a center of berry growing.

COOS COUNTY.

Southwestern part of state; west slope Coast mountains; on Pacific Ocean.

County Seat—Coquille.

Population—17,959; 80% American born. Of the foreign born about one-third is Scandinavian, the balance being composed mostly of Canadians, Germans, English, Irish and Scotch.

Transportation—West central part of county is traversed by Coos Bay, Roseburg & Eastern Railroad; Coos Bay and Coquille harbors afford anchorage for medium-draft sea-going vessels, and Coquille river, which empties into Coquille harbor, is navigable to light-draft vessels several miles inland. Coos Bay has been under Federal improvement for two years which has made it possible for large lumber vessels of 3,000,000 feet capacity to enter and leave. Coos Bay is largest natural harbor between Columbia river and San Francisco. Southern Pacific system has under construction line of railroad branching from main line at Eugene, Lane County, proposing to enter Coos County from the north and affording direct rail connection with the outside world.

Water—Coquille river, Coos river and other rivers and streams afford an abundant supply of water for all purposes and possess vast undeveloped water powers.

Roads—Large sums are expended annually for construction and maintenance of public highways.

Timber—About one-half the total area of the county is covered by forests which consist principally of Douglas fir, Port Orford white cedar, spruce, hemlock, myrtle and some maple and ash.

Minerals—Gold (placer and quartz), silver, copper, lead and coal exist in the county. While the former have never been developed in commercial quantities, Coos is the heaviest coal-producing county in the state, the total area of its coal fields approximating 230 square miles, and surrounding Coos Bay. Practically the total output of the coal mines in the county (sub-bituminous in character) is shipped to Portland and San Francisco by sea.

Lands—Surface: Level and undulating along the river bottoms; rolling hills and mountains in the interior. Soils: Much tideland, which, when reclaimed by diking and draining, produces excellent crops of grasses and vegetables. Upland soil, constituting nine-tenths of total area, is red alluvial; excellent for fruit culture, and, in its natural state, produces small fruits, sunflowers and grains to advantage. Apples and pears do especially well in this county, this being particularly true of the Gravenstein

apple. Other kinds of fruits also do well but the fruit growing industry is in the early stages of development. Average value of farm lands \$33.41 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Lumbering, mining, salmon fishing and packing, agriculture, cranberry culture, horticulture and dairying. Lack of adequate transportation facilities in past has greatly retarded development of resources and industries.

Fuel—Native soft coal and wood are the principal fuels used. Coal costs \$3.25 to \$4 per ton and wood \$2.50 per cord.

County fair is held annually at Myrtle Point. County awarded valuable premiums for display, individual and collective, of dairy and other products at State Fair and Lewis & Clark Centennial Exposition.

Ten to 20 acres, under intensive cultivation, and 40 to 100 acres, general farming, sufficient for support of average family and will produce good income.

Average daily wage for skilled labor \$3.65; unskilled \$2.30.

For information address: Coquille Commercial Club; Marshfield Chamber of Commerce; North Bend Commercial Club.

Newspapers will send copies: Weekly Recorder, Bandon; Weekly Herald, Coquille Valley Sentinel, Coquille; Daily Record, Weekly Coos Bay News, Weekly Sun, Daily and Weekly Times, Marshfield; Weekly Enterprise, Myrtle Point; Weekly Harbor, North Bend.

CITIES, TOWNS AND VILLAGES.

Bandon—Altitude 25 feet. Population 1,803 (U. S. census 1910). On Pacific Ocean at mouth of Coquille river. It is the seaport for the rich Coquille Valley. A stage line operates through Curry County to Eureka, California, and to Roseburg, Oregon, the nearest railroad connection. Rich farming district surrounding city and vast coal resources in the vicinity are as yet practically undeveloped. Immense bodies of virgin timber immediately contiguous. Direct steamship connection with Portland, San Francisco and other outside markets. Bandon would be a popular seaside resort with railroad transportation. Principal industries are salmon fishing and packing, boat building, lumbering, dairying, general farming, manufacturing and stock raising. Gravity water system and electric lighting plant under private ownership. Has high and graded public

schools and seven churches: Baptist, Catholic, Christian, Episcopal, Latter Day Saints, Methodist and Presbyterian.

Beaver Hill—Altitude 10 feet. Population 149. On line of Coos Bay, Roseburg & Eastern Railroad. Industries are coal mining and lumbering. Electric lighting plant and gravity water system are under private ownership. Has graded public school and churches.

Coquille—(County Seat)—Altitude 69 feet. Population 1,398 (U. S. census 1910). In center of Coquille Valley, rich agricultural and dairying section, and on line of Coos Bay, Roseburg & Eastern Railroad and Coquille river, navigable to light-draft vessels from this point to the Pacific Ocean. Is an important shipping and trading center for a large and fertile farming territory and the principal industries are lumbering, dairying, manufacturing, salmon fishing and packing, farming and fruit raising. City owns gravity water works system, river water front and municipal docks. Electric lighting plant privately owned. Large area of reclaimed swamp lands in vicinity especially adapted to farming and vegetable growing. Has high and graded public schools and seven churches: Adventist, Christian, Episcopal, Methodist Episcopal, Methodist (South), Presbyterian and Universalist.

Eastside—Altitude 80 feet. Population 252. On line of Coos Bay, Roseburg & Eastern Railroad and the Isthmus Inlet. Industries: Lumbering, fishing and dairying. Has graded public school and churches.

Empire—Altitude 25 feet. Population 147. On Coos Bay harbor. Industries: Lumbering, fishing and dairying. Has graded public school and churches.

Marshfield—Altitude 12 feet. Population 2,980 (U. S. census 1910). Coos Bay terminal of the Coos Bay, Roseburg & Eastern Railroad and on Coos Bay, near the mouth of the Coos river. Shops, depot and terminal grounds of the railroad located here. Terminal Railway Company (local) owns water front line and has franchise for street railway in prospect. Together with North Bend, it is the natural outlet for the products of the inland agricultural, dairying and farming section and chief distributing point for the same. Principal industries in and around the city are lumbering, boat building, dairying, coal mining, fishing, farming and fruit growing. City owns gravity water works system; electric lighting system is under private

ownership. Streets modernly improved and well lighted and city is provided with sewerage system, cement sidewalks, public park and other improvements. Has high and graded public schools and six churches: Baptist, Catholic, Episcopal, Lutheran, Methodist and Presbyterian. Large paper pulp plant in course of construction here. One of the largest sawmills on the coast is located here.

Myrtle Point—Altitude 73 feet. Population 836 (U. S. census 1910). Southern terminal of the Coos Bay, Roseburg & Eastern Railroad and head of navigation on Coquille river. In center of and distributing point for large and fertile territory in Coquille Valley and the principal industries are lumbering, farming, dairying, truck gardening, fruit culture, stock raising and coal mining. Immense body of merchantable timber in vicinity. City owns gravity water works system; electric lighting plant is under private ownership. Has high and graded public schools and six churches: Christian, Methodist Episcopal, Methodist (South), Latter Day Saints, Presbyterian and United Brethren.

North Bend—At sea level. Population 2,078 (U. S. census 1910). Adjoins Marshfield on the south, which is the northern terminal for the Coos Bay, Roseburg & Eastern Railroad, and is one of the principal shipping outlets on Coos Bay for the varied products of the county. Its wharves permit of the dockage of ocean-going vessels and city enjoys regular steamer service to and between San Francisco and Portland and other points. Industries are lumbering, dairying, coal mining, ship building and manufacturing. City owns docks and harbor frontage. Southern Pacific Railroad Company has franchise for railroad line over certain streets of city. Gravity water works system and electric and gas lighting plants are under private ownership. Has high and graded public schools and five churches: Catholic, Methodist, Presbyterian, Swedish Lutheran and United Brethren.

Among the other more important trading points in the county are Allegany, Beaverton, Bullards, Gravelford, Lakeside, Lampa, Norway, Sheridan and Templeton.

CURRY COUNTY.

Southwest corner of state; west slope Coast mountains; on Pacific Ocean.

County Seat—Gold Beach.

Population—2,044; 82% American born. Of the foreign born about one-fourth is Scandinavian; the balance Canadian, English and German.

Transportation—No railroads in the county; nearest railroad connection is Roseburg, Douglas County, by stage to Myrtle Point, Coos County. Water transportation into county from the north is via Coos Bay, and from the south via Crescent City, California, thence by stage into Curry County. Lack of transportation facilities responsible for tardy development of resources. Gasoline schooners run regularly into Port Orford from the north.

Water—Chetco, Elk, Pistol, Rogue and Sixes rivers and their tributaries afford abundant supply of water for domestic and other purposes and possess big undeveloped water power possibilities. The Rogue river alone is capable of developing approximately 90,000 horsepower.

Timber—Natural forest growth consists of Douglas fir, Port Orford cedar, myrtle, madrone, sargeant oak, tan oak, spruce, alder, hemlock and ash. Lumber-

ing industry, which is one of the principal industrial resources of the county, is undeveloped.

Minerals—Gold, copper and coal are the principal products, while deposits of borax, chrome, iron, cobalt, cinnabar and galena are known to exist and quarries of fine building stone are found in the north end of the county.

Lands—Surface: Narrow but fertile valleys, tide and marsh lands, rolling hills and mountains. Mostly rough and mountainous. Soils: Very similar to those of Coos County, having an underlying of sandstone. Rich in lime and sulphuric acid and will grow anything suited to a mild and temperate climate. Clover grows luxuriantly, especially upon the red uplands. Apples, cherries, small fruits and vegetables should grow well upon this soil. Soil short lived and requires scientific farming. Average value farm lands \$16.23 per acre, cultivated and uncultivated (U. S. census 1910).

Roads—Main highway through county in good condition, considerable money having been spent to gravel it; motoring good.

Fuel—Wood is the principal fuel used and costs about \$2.50 per cord.

Industries—Leading industries of the

BANKING WEALTH OF OREGON.

STATEMENT OF STATE BANKING DEPARTMENT, SALEM, OREGON.—Showing the condition in aggregate of the banks in the state of Oregon at the close of business Sept. 4, 1912, in comparison with that of Sept. 1, 1911. Also aggregate resources and liabilities of both State and National Banks in the City of Portland at close of business Sept. 4, 1912, in comparison with that of Sept. 1, 1911.

Salem, Oregon, Sept. 30, 1912.		Combined figures of all the Banks in the State.				Portland Banks.			
Number of Banks.....		Sept. 4, 1912. 252	Sept. 1, 1911. 249	Increase. 3	Decrease. 0	Sept. 4, 1912. 21	Sept. 1, 1911. 22	Increase. 0	Decrease. 1
Resources.									
Loans and discounts.....	\$ 82,712,826.48	\$ 76,880,371.80	\$5,832,254.68			\$44,140,468.65	\$40,532,282.90	\$3,608,185.75	
Overdrafts.....	485,749.74	647,579.99		\$161,830.25		149,188.61	111,924.99	37,273.62	
Securities, bonds, etc.....	16,446,394.96	15,617,313.66	829,081.30			10,661,052.85	10,178,020.00	483,032.85	
Banking house, furniture and fixtures.....	3,939,698.44	3,393,744.24	545,954.20			762,714.81	653,993.40	108,721.51	
Other real estate owned.....	774,907.24	684,812.27	90,094.97			341,123.50	243,055.64	98,067.86	
Due from banks (not reserve banks).....	28,712,548.43	26,125,567.31	2,587,281.12			15,817,646.35	15,111,459.01	706,187.34	
Due from approved reserve agents.....									
Checks and other cash items.....	606,297.69	582,568.97	23,728.72			339,414.72	320,293.07	19,121.65	
Exchanges for clearing house.....	1,508,641.74	1,506,601.90	2,039.84			1,371,085.81	1,402,267.93		\$ 31,282.05
Cash on hand.....	14,322,485.25	14,695,869.23		873,383.98		8,955,737.13	9,385,004.39		429,267.26
United States bonds to secure circulation.....	5,883,260.00	5,457,260.00	426,000.00			2,800,000.00	2,800,000.00		
United States bonds to secure deposits.....	1,569,781.92	1,426,000.00	143,781.92			1,375,000.00	1,250,000.00	125,000.00	
United States bonds on hand.....	244,280.09	245,940.00		1,660.00			54,100.00		54,100.00
Premiums on United States bonds.....	52,352.05	27,087.53	25,264.52			33,036.47		33,036.47	
Five per cent redemption fund.....	291,408.00	268,203.00	23,205.00			140,000.00	140,000.00		
Expenses.....	93,833.23	219,542.71		125,709.48			117,309.14		117,309.14
Other items than above.....	540,888.89	452,784.86	88,104.03			510,680.26	428,373.21	81,307.05	
Totals.....	\$158,185,454.06	\$148,231,247.47	\$9,954,206.59	(Net)		\$87,387,159.26	\$82,729,183.81	\$4,657,975.45	
Liabilities.									
Capital stock paid in.....	\$ 17,633,260.90	\$ 16,912,750.00	\$ 720,510.90			\$ 7,900,000.00	\$ 8,000,000.00		\$100,000.00
Surplus fund.....	6,458,336.05	5,987,194.02	471,142.03			3,215,800.00	2,948,684.31	267,115.69	
Undivided profits.....	2,540,911.87	2,264,684.84	276,227.03			1,152,181.29	1,030,667.96	121,493.33	
Dividends unpaid.....	9,389.45	8,999.93	389.52			2,833.00	1,973.00	860.00	
Due to banks and bankers.....	14,882,826.01	12,381,092.12	2,501,733.89			13,635,918.65	11,465,598.63	2,170,320.02	
Deposits due State Treasurer.....	832,000.00	297,000.00	535,000.00			428,000.00	114,000.00	314,000.00	
Deposits subject to check.....	76,198,271.27	74,497,095.19	1,701,176.08			37,618,580.48	38,117,477.18		498,896.68
Demand certificates of deposit.....	5,048,741.45	5,427,415.61		380,674.16		2,063,809.16	2,368,629.18		304,820.02
Time certificates of deposit.....	11,674,927.64	11,347,101.50	327,826.04			5,295,053.80	5,403,023.85		107,970.05
Savings deposits.....	14,181,028.80	11,843,737.20	2,338,181.60			11,268,097.12	9,687,960.18	1,580,136.94	
United States postal deposits.....	658,630.05	37,714.37	620,915.68			639,873.85		639,873.85	
United States deposits.....	913,602.30	800,737.29	112,865.01			811,893.22	700,243.52	111,649.70	
Deposits United States disbursing officers.....	430,751.28	534,422.67		103,671.39		427,288.40	519,872.59		92,606.19
Notes and bills re-discounted.....	77,395.00	133,592.83		56,227.83		21,500.00	8,000.00	13,500.00	
Bills payable.....	354,665.00	363,810.00		9,145.00					
Certificates of deposit issued for money borrowed.....	243,500.00	368,000.00		122,500.00			70,000.00		70,000.00
National bank notes outstanding.....	5,199,975.00	4,322,058.30	877,916.70			2,297,992.50	1,811,135.00	486,857.50	
Reserved for taxes.....	136,600.99	69,743.87	66,857.12			129,204.65	56,090.00	73,114.65	
Other liabilities.....	611,774.00	639,067.73		27,293.73		579,875.14	532,828.43	47,046.71	
Totals.....	\$158,185,454.06	\$148,231,247.47	\$9,954,206.59	(Net)		\$87,387,159.26	\$82,729,183.81	\$4,657,975.45	

See notes to this table on page 72.

county, all of which are in the infant stages of development because of lack of transportation facilities, are agriculture, dairying, lumbering, shingle manufacturing, salmon fishing (and packing upon small scale), stock raising and mining.

Numerous summer resorts offer good accommodations and excellent climatic conditions, including Langlois, Port Orford, Gold Beach, Pistol river, and Harbor, at the mouth of Chetco river.

For information address: Port Orford Commercial Club.

Newspapers will send copies: Weekly Globe, Gold Beach; Port Orford Tribune, Port Orford.

CITIES, TOWNS AND VILLAGES.

(Not Incorporated.)

Agness—Near mouth of Illinois river, in heart of mining section. Farming country. Large bodies of timber contiguous.

Gold Beach—(County Seat)—Altitude 100 feet. Population 164 (U. S. census 1910). Local estimate 200. On south side of Rogue river, opposite Wedderburn. Surrounded by extensive stock country; large bodies of merchantable timber in vicinity. Shipping is engaged in by light-draft boats to outside points along the coast from the mouth of Rogue river, navigable for some distance inland. Extensive and valuable latent resources of county and industries awaiting transportation facilities and development. Railroad building from the north into Coos County, which will ultimately be extended into this county. Fishing, lumbering, stock raising and dairying are the principal industries. Has graded public school and churches.

Harbor—At mouth of Chetco river. Rich farming and dairy country. Large bodies of timber surrounding. Graded public school and churches. Deep-sea

fishing, farming, lumbering and dairying are the principal industries.

Langlois—Population about 200. Heart of rich dairying section and surrounded by large bodies of timber. Graded public school and church.

Port Orford—Altitude about 200 feet. Population 225. On Port Orford harbor, which will permit heavy-draft sea-going vessels to dock at the wharves nine months of the year. Dairying and timbered country surrounding and many cargoes of railroad ties, lumber, matchwood, shingles (manufactured from famous Port Orford white cedar), butter and wool are shipped from this port annually. Will no doubt be a great summer resort when more accessible. Lumbering, shingle manufacturing and dairying are the principal industries. Has high and graded public school and church (non-denominational). An extensive agate beach is found north of the town and a yearly exhibition of private collections of agates and the find of the year is an unique event. The Battle of Battle Rock is also celebrated annually, in commemoration of a desperate fight which took place between the Indians and the first white people who landed there.

Wedderburn—Altitude about sea level. Population 100. At mouth of Rogue river with harbor facilities which admit of light-draft sea-going vessels greater portion of the year. Has cold-storage plant, formerly operated in connection with one of largest salmon packing plants on the coast, recently closed down. Principal industries are lumbering and salmon fishing and packing upon small scale. Large sawmill near and town in close proximity to heavy belt of merchantable timber. Has graded public school and church.

Other important towns in the county are: Corbin, Denmark, Eekley, Hare, Illahe and Ophir.

LINCOLN COUNTY.

West central coast; west slope Coast mountains; on Pacific Ocean.

County Seat—Toledo.

Population—5,587; 72% American born. Of the foreign born about one-fourth is Scandinavian and the balance is made up principally of English, Canadians, Germans and Irish.

Transportation—Corvallis & Eastern Railroad (Southern Pacific) crosses the county from the east, having its western terminus at Yaquina City and con-

nects with the main line of the Southern Pacific at Albany, Linn County, and also with the West Side division of the same system at Corvallis, Benton County. Newport, on Yaquina Bay, and principal seaport on the western coast of the county, is reached by boat from Yaquina City. Yaquina Bay affords harbor and docking facilities for light-draft sea-going vessels and is naturally sheltered from storms. The Yaquina river is also navigable for light draft vessels to Toledo.

Water—The Salmon, Siletz, Yaquina, Big Elk and Alsea rivers and other small streams supply an abundance of water for domestic and other purposes and water power for future development.

Timber—The natural forest growth is cedar, red and yellow fir, alder, maple and spruce. The vast timber wealth of the county is in the early stages of development. Chittim (*cascara sagrada*) bark, used universally and extensively for medicinal purposes and commanding a widespread and remunerative market, abounds in plenty in this county.

Minerals—Gold, platinum, coal and iron are found in this county, besides a good quality of granite and sandstone for building purposes. Agates, cornelians, moonstones and other valuable ornamental stones are found in apparently inexhaustible supply.

Land—**Surface**: Level and rolling alluvial valleys; soapstone hills and mountains. **Soils**: There is a variety of soils from the sandy loam of tidewater to the tideland of Toledo City. The sandy loam is sufficient in phosphoric acid and humus but somewhat lacking in lime and potash. Much improved by applications of land plaster. Soils of bottom lands are rich, brown alluvium of great depth, fine texture and contains a large proportion of decomposed feldspar. Well adapted to growing fruits and vegetables; onions do exceptionally well on this soil. Average value farm lands \$20.35 per acre, cultivated and uncultivated. (U. S. census 1910).

Industries—Lumbering, mining, salmon fishing and packing, dairying, general farming and fruit growing. Oysters, clams, crawfish and deep-sea fish in wide variety are caught in great quantities in the streams, harbor and along the coast and find a ready market. Extensive halibut and codfish banks have been located off the coast of this county awaiting development of profitable industry.

Five to 10 acres, truck gardening and intensive farming; 40 to 80 acres dairying, etc., sufficient for needs of average family and will yield good profits.

Fuel—Wood is principal fuel used and costs \$1.50 to \$3 per cord.

Wild game and game fish abound in plenty in the fields, woods, bays and streams of the county. Newport, one of the most popular and scenically picturesque seaside resorts in the Pacific Northwest.

Average daily wage for skilled labor \$3.50; unskilled \$2.00.

For information address: Newport Commercial Club; Toledo Development League.

Newspapers will send copies: Weekly Signal, Yaquina Bay News, Newport; Lincoln County Leader, Toledo; Weekly Journal, Waldport.

CITIES, TOWNS AND VILLAGES.

Newport—Altitude 69 feet. Population 721 (U. S. census 1910). On Yaquina Bay, which admits of light-draft sea-going vessels, and is four miles across the bay from Yaquina City, the western terminus of the Corvallis & Eastern Railroad, which junctions with the main line of the Southern Pacific at Albany, Linn County, and West Side division of same system at Corvallis, Benton County. Industries are farming, dairying, lumbering, stock raising, small fruits and vegetables. Fishing and shipping of oysters, clams and deep-sea fish. Surrounding country, aside from undeveloped lumbering possibilities, especially adapted to dairying, small fruit raising and truck gardening to supply demands of beach resorters during vacation seasons. Is one of the most popular seaside summer resorts in the Pacific Northwest. City owns water works system. Has high and graded public schools and four churches: Baptist, Catholic, Episcopal and Presbyterian.

Toledo—(County Seat)—Altitude 75 feet. Population 541 (U. S. census 1910). On line of Corvallis & Eastern Railroad and near the mouth of the Yaquina river and at the head of Yaquina Bay. Stock raising and dairying are the principal industries and lumbering is an important but undeveloped resource. Surrounding country affords good opportunities for farming, dairying and fruit growing. Has high and graded public schools and four churches: Adventist, Episcopal, Lutheran and Methodist.

Waldport—Altitude 45 feet. Population 310. Fifteen miles from Yaquina City, nearest point on the Corvallis & Eastern Railroad, and on Alsea Bay, at mouth of Alsea river. Chief industries are lumbering and salmon fishing and packing, but surrounding country is especially adapted to dairying, stock raising and farming, small fruits and vegetables. Is rich in agricultural resources in primitive state of development. Has high and graded public school and one church: Presbyterian.

Yaquina City—Population about 100. Is western terminus of the Corvallis &

FACTS REGARDING POPULATION OF OREGON.

COUNTY.	Population.		Area—Acres.	Per Cent of Increase.	Population Per Square Mile.
	1910	1900			
†Baker.....	18,078	15,597	1,958,400	15.9	5.9
Benton.....	10,668	6,706	440,320	59.0	15.5
Clackamas.....	29,931	19,658	1,192,980	52.3	16.1
Clatsop.....	18,106	12,765	525,440	26.2	19.6
Columbia.....	10,580	6,237	423,680	69.6	16.0
Coos.....	17,959	10,324	1,041,920	74.0	11.0
Crook.....	9,315	3,964	4,977,920	135.9	1.2
Curry.....	2,044	1,868	958,720	9.4	1.4
Douglas.....	19,674	14,565	3,150,080	35.1	4.1
Gilliam.....	3,701	3,201	768,640	15.6	3.1
Grant.....	5,607	5,948	2,892,800	5.7	1.2
Harney.....	4,059	2,593	6,357,120	56.2	0.4
†Hood River.....	8,018	347,520			14.8
Jackson.....	25,758	13,698	1,815,040	68.0	9.1
Josephine.....	9,587	7,517	1,120,640	27.3	5.5
Klamath.....	8,554	3,970	3,639,360	115.5	1.4
Lake.....	4,658	2,847	5,068,800	43.6	0.6
Lane.....	33,783	19,604	2,951,680	72.3	7.3
Lincoln.....	5,587	3,675	645,120	56.3	5.5
Linn.....	22,662	18,603	1,433,520	21.8	10.1
Malheur.....	8,601	4,203	6,325,120	104.6	0.9
Marion.....	39,780	27,713	764,160	43.5	33.3
Morrow.....	4,357	4,151	1,296,000	5.0	2.2
Multnomah.....	226,261	103,167	288,640	119.3	501.7
Polk.....	13,469	9,923	453,760	55.7	19.0
Sherman.....	4,242	3,477	535,040	22.0	5.1
Tillamook.....	6,266	4,471	720,000	40.1	5.6
Umatilla.....	20,309	18,049	2,030,720	12.5	6.4
†Union.....	16,191	16,070	1,335,680	0.8	7.8
Wallowa.....	8,364	5,538	2,012,800	51.0	2.7
†Wasco.....	16,336	13,199	1,499,520	23.6	7.0
Washington.....	21,522	14,467	476,640	48.8	29.4
Wheeler.....	2,464	2,443	1,090,560	1.7	1.5
Yamhill.....	18,285	13,420	456,960	36.3	25.3
Total.....	672,765	413,536	61,188,480	62.7	7.0

†Parts of Grant and Union Counties annexed to Baker County in 1902.

†Hood River County organized from part of Wasco in 1903.

Eastern Railroad and on Yaquina Bay, chief seaport of which is Newport, four miles across the bay to the west. Surrounded by heavily timbered section and large area of rich agricultural territory.

Has graded public school and church.

Other important trading points in the county are: Eddyville, Elk City, Kernville, Lutgens, Nashville, Siletz, Tide-water, Vernon.

TILLAMOOK COUNTY.

Northwestern part of state; west slope Coast mountains; on Pacific Ocean.

County Seat—Tillamook.

Population — 6,266; 72% American born. Of the foreign born about one-third is Scandinavian and the remainder is composed principally of Germans, Canadians, Scotch and Irish.

Transportation—Pacific Railway & Navigation Company railroad traverses

county from northeast corner to head of Nehalem Bay and mouth of Nehalem river, thence southerly along western coast and Tillamook Bay to Tillamook City, county seat and head of navigation on Tillamook Bay. Nehalem Bay, Tillamook Bay and Nestucca Bay are all natural and land-locked harbors, the first and last of which will admit medium-draft vessels, while Tillamook

Bay is the chief harbor, and when the necessary bar improvements are completed, will permit of the entrance of heavier draft vessels and will become one of the most important on the coast between San Francisco Bay and the Columbia river. Great sums are available and are being expended in jetty work to deepen the channel in Tillamook Bay and the entrance to Nehalem Bay.

Water—Nehalem, Tillamook, Kelchis, Wilson, Trask and Nestucca rivers, with their numerous tributaries, all of which empty into the several harbors of the county, afford an abundance of water for all needs and there are great water power possibilities awaiting development upon many of the streams, most notably the Wilson river.

Timber—Estimated standing timber in the county, approximately 32,000,000,000 feet, mostly in the northern part of the county, consists principally of red and yellow fir, spruce, hemlock, cedar and, on the higher lands, of larch, alder and maple. While lumbering is one of the important industries of the county, the immense wealth of forestry has scarcely been tapped and it is estimated that it will require an expenditure of \$275,000,000 in wages and equipment to place the visible supply on the market.

Minerals—Practically no minerals exist in the county in merchantable quantities. Lignitic coal exists in northern part of county but not developed.

Lands—Surface: Hilly in the northern and southern parts; comparatively level in the central portion. Soils: River bottoms are sandy loam; the prairie sandy loam and clay, a fine soil for root crops and grasses. Bottom lands naturally well adapted to growing grain, fruit, vegetables and berries. Higher lands to grain and small fruits. Average value farm lands \$65.87 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Lumbering, manufacturing, dairying and salmon fishing and packing are the principal industries. General farming, fruit growing and stock raising also engaged in extensively. Vast areas, practically untouched, adapted to dairying, fruit raising, stock raising and cranberry culture. Is the banner dairy county of the state, there being over 50 cheese factories in existence and hundreds of thousands of dollars are realized annually in profits from the manufacture and sale of cheese. Is also one of the very few counties in the state or on the coast in which ideal conditions

exist for cranberry culture, which is a highly profitable industry.

Roads—County is expending \$125,000 annually in the construction and maintenance of public highways, which are in good condition, and many miles of macadam road have been built.

Scenery, inland and mountain, as well as sea coast, is magnificent, and wild game of all varieties are found in abundance. Neah-kah-nie mountain and beach, Bayocean, Garibaldi beach, Brighton, Lake Lytle, Neskowin, Pacific City and Netarts are the principal summer and coast resorts.

Two to five acres, cranberry culture; 20 to 160 acres dairying and general farming produce handsome profits.

Average daily wage skilled labor \$3.50; unskilled \$2.00. Farm hands \$30 per month and board.

For information address: Bay City Commercial Club; Bayocean Commercial Club; Nehalem Commercial Club; Tillamook Commercial Club.

Newspapers will send copies: Weekly Examiner, Bay City; Weekly Courier, Clowerdale; Weekly Enterprise, Nehalem; Weekly Lookout, Pacific City; Weekly Herald, Weekly Headlight, Tillamook.

CITIES, TOWNS AND VILLAGES.

Bay City—Altitude 14 feet on tide-water. Population 281 (U. S. census 1910). Local estimate 450. On main line of Pacific Railway & Navigation Company railroad and on Tillamook Bay. Surrounded by vast area of timbered country and agricultural land and is situated most advantageously from a commercial viewpoint on the largest natural harbor in the county. Lumbering, salmon fishing and packing, fruit raising and general farming are the principal industries. Has factory sites convenient to deep water and railroad. Has plentiful supply of pure mountain water; water works system and electric lighting plant under private ownership. One union high school located here as well as graded public school and churches of three denominations. Congress has appropriated \$407,000, \$100,000 of which is now available for the construction of a jetty and deep water channel to Bay City. The Port of Bay City will raise a like amount which will be applied to the same use.

Bayocean—At tidewater. Occupies whole of a peninsula which leaves the mainland in Western Tillamook and forms the western boundary of Tillamook

Bay; total area 600 acres. It is primarily a pleasure resort and large sums are being expended on its development and improvement. Has railroad connection with the mainland at any of the bay cities, via ferries across the harbor, but more directly with Garibaldi on the P. R. & N. Railroad. Gravity water works system and electric lighting plant are under private ownership. Hunting, fishing, bathing, boating, deep-sea fishing, clam digging, etc., are the favorite sports and pastimes, the conditions for which are excellent.

Nehalem—Altitude about 50 feet. Population 119 (U. S. census 1910). On west side and near mouth of Nehalem river, on opposite bank from P. R. & N. Railroad, which proposes to construct a bridge across river in conjunction with the county. Is the principal commercial and industrial center of Nehalem Valley, which embraces about 200,000 acres of fine timber, dairy and farming lands, and which is drained by Nehalem river; navigable to light-draft vessels for a distance of 10 miles inland. Congress has appropriated \$100,000 which is available for harbor improvement. Lumbering, dairying, salmon fishing and packing are the principal industries of the vicinity. City owns gravity mountain water

system. Some undeveloped coal deposits exist near the town. City has high and graded public schools and one church: Methodist.

Tillamook—(County Seat)—Population 1,352 (U. S. census 1910). At head of tidewater and navigation on Hoquarton Slough at south extreme of Tillamook Bay and near mouth of Wilson and Trask rivers, which empty into the bay. Is also southern terminus of the P. R. & N. Railroad. Is the central distributing point for extensive area of rich timbered and agricultural and dairying lands and the chief shipping point for the varied products of same. Principal industries are dairying, lumbering and fishing. Good water power available for manufacturing purposes. City owns gravity water works system; electric lighting plant is under private ownership. Has high and graded public schools and one private (Catholic) school and seven churches: Adventist, Catholic, Christian, Lutheran, Methodist, Presbyterian and United Brethren. Has hard surface streets, good sidewalks and sewer system.

Other towns and trading points are: Blaine, Brighton, Garibaldi, Hobsonville, Neskowin, Pacific City, Trask, Wheeler and Woods.

The Coast Country of Oregon is similar in climate to the Jersey and Guernsey Islands and the Netherlands—the most celebrated dairy regions of the world.

ROGUE RIVER VALLEY.

Temperature Average for Section.

Ashland—July Max. 87°; Min. 50°; Jan. Max. 46°; Min. 30°.

JACKSON COUNTY

South Central Oregon; Rogue River Valley.

County Seat—Jacksonville.

Population—25,756; 89% American born. Of the foreign born one-fourth are Germans and the remainder Canadians, English, Irish, Scandinavians and Austrians.

Transportation—Main line of Southern Pacific traverses the county from the middle west to central southeast. The Pacific & Eastern (Northern Pacific) railroad operates from Medford,

junction point with the Southern Pacific, to Butte Falls, in Cascade foothills, a distance of 35 miles. Rogue River Valley Railroad operates from Medford to Jacksonville, the county seat, 5½ miles. Klamath Lake Railroad, in extreme southeastern corner of the county, three miles.

Water—Rogue river and its numerous tributaries drain an immense watershed, and furnish an abundant supply of water for domestic, irrigation and other purposes. Of the 235,000 hydro-horsepower available in this county, only 1,460 has been developed.

Roads—There are 800 miles of public highways maintained by taxation and subscription.

Timber—Natural forest growth, which is quite extensive, consists of oak, yellow and sugar pine, fir and willow.

Minerals—Coal, asbestos, serpentine, limestone, gold, silver, copper, fireclay, granite, marble, etc. Mineral springs, with acknowledged therapeutic properties, abound in the county and the waters from them are extensively shipped.

Fuel—Wood is principal fuel used and costs \$4.00 to \$6.00 per cord.

Lands—Surface: Level, rolling hills and mountains. Soils: Alluvial, ranging in depth from 10 inches to several feet. In the immediate vicinity of Rogue River Valley are successive rich alluvial deposits which are particularly favorable to the raising of fruits of all kinds, especially peaches; sugar beets, hemp, onions, sorghum and strawberries also thrive. The finest quality of apples, peaches, pears and strawberries is produced in this county, which has attained an international reputation for pears and apples, which command a widespread and remunerative market. Products are marketed through the association co-operative plan and there is a preserving and cold-storage plant in connection. Average value farm lands \$90.60 per acre, cultivated and uncultivated (U. S. census 1910.)

Industries—Fruit growing is the leading industry in the valleys, but lumbering is carried on extensively in the foothills and mining in the northern and southern portions. Products have won high awards in competitive exhibits in which they have been shown.

Ten to 40 acres, intensified and diversified farming; 20 acres and upwards, dairying and general farming pay good dividends.

Average daily wage for skilled labor \$3.25; unskilled \$2.25

First Southern Oregon District Agricultural Fair held at Ashland, Medford and Grants Pass, each year in rotation.

For information address: Ashland Commercial Club; Central Point Commercial Club; Medford Commercial Club.

Newspapers will send copies: Weekly Valley Record, Ashland Tidings, Ashland; Weekly Herald, Weekly Globe, Central Point; Weekly News, Gold Hill; Weekly Post, Jacksonville; Weekly Sun, Daily Mail-Tribune, Rogue River Magazine, Weekly Review, Medford.

CITIES, TOWNS AND VILLAGES.

Ashland—Altitude 1,960 feet. Population 5,020 (U. S. census 1910). Local estimate 6,000. Division terminal on main line of Southern Pacific Railroad and special motor service between Ashland and Grants Pass, Josephine County, in Rogue River Valley. In midst of rich and fertile agricultural section and lumbering and mining district, and leading industries are fruit growing, general farming, stock raising, lumbering and mining. Country surrounding and climatic conditions especially suited to fruit growing, stock raising, dairying, poultry raising and mining. Peaches attain highest state of perfection in this section and the product enjoys a widespread reputation. Average annual rain fall 21 inches. City has modern, improved, well lighted streets, sewerage system, fire protection, telephones, etc. Has high and graded public schools, a business and normal college and 12 churches: Baptist, Catholic, Christian, Christian Science, Congregational, Dunkard, Episcopal, Methodist Episcopal, Methodist (Free), Nazarene, Presbyterian and Spirituality. Surrounding environment picturesque and hunting and fishing conditions ideal. Ashland Lithia Springs and Wagner Soda Springs, are near this city. Southern Oregon Chautauqua Assembly is held here annually, also First Southern Oregon District Agricultural Fair upon alternate years with Grants Pass and Medford. City owns gravity mountain water system and electric lighting plant. The original lighting and power plant is under corporation ownership. Creamery, cannery and fruit associations. Manufactures include foundry and machine shops, ice, granite works, cement blocks, brick, shoes, etc.

Central Point—Altitude 298 feet. Population 761 (U. S. census 1910). Local estimate 1,400. On main line of Southern Pacific Railroad and in Rogue River Valley. Principal shipping and distributing point for rich agricultural and fruit growing district and center of great alfalfa district of the valley. Packing and shipping point for many great orchards. Abundance of water for irrigation, power and other purposes. Fruit growing is most important industry; peaches, apples, pears, apricots, berries and grapes being the most favored varieties. In agriculture, alfalfa, potatoes, onions, melons and all varieties of garden truck are prolific producers and highly remun-

GROWTH OF ELEVEN LARGEST CITIES IN OREGON FROM 1900 TO 1910.

Portland and ten next largest cities of state.

CITY.	COUNTY.	Population.		Increase from 1900 to 1910	
		1910	1900	Number.	Per Cent.
Portland.....	Multnomah.....	207,214	90,428	116,786	129.2
Salem.....	Marion.....	14,094	4,258	9,836	201.0
Astoria.....	Clatsop.....	9,599	8,381	1,218	14.5
Eugene.....	Lane.....	9,009	3,236	5,773	178.4
Medford.....	Jackson.....	8,840	1,791	7,049	393.6
Baker.....	Baker.....	6,742	6,663	79	1.2
Ashland.....	Jackson.....	5,020	2,634	2,386	90.6
The Dalles.....	Wasco.....	4,880	3,542	1,338	37.7
Roseburg.....	Douglas.....	3,738	1,690	3,048	180.3
Corvallis.....	Benton.....	4,552	1,819	2,733	150.2
Pendleton.....	Umatilla.....	4,480	4,406	74	1.2

Authority: Prepared by Oregon Statistical Bureau. Figures based on the census of 1910.

erative. Dairying, lumbering and mining are also important industries of this vicinity. Low altitude, with favorable climatic conditions contribute to high state of cultivation for fruits, nuts, vegetables, etc., and early ripening season affords advantage of best market prices for products. City owns water works system and electric lighting plant owned by private parties. Has high and graded public schools and five churches: Baptist, Christian, Christian Science, Methodist Episcopal and Presbyterian. Average annual rainfall 22 inches.

Gold Hill—Altitude 1,109 feet. Population 423 (U. S. census 1910). Local estimate 618. On main line of Southern Pacific Railroad and on Rogue river in Rogue River Valley. In midst of rich and fertile fruit and general farming country and surrounded by extensive forestry and mining district and the principal industries are mining, stock raising, fruit culture and farming. Water works system and electric lighting plant are owned by private parties. Has high and graded public schools and church, non-sectarian, in which all denominations hold services. Is gateway to Crater Lake, being the nearest railroad point to this great Nature's wonder.

Jacksonville — (County Seat) — Altitude 1,600 feet. Population 785 (U. S. census 1910). Is terminus of Rogue River Valley Railroad, which connects with the main line of the Southern Pacific at Medford, 5½ miles distant. In midst of excellent fruit growing district in Rogue River Valley and fruit growing and mining are the principal industries in the early stages of develop-

ment. Has high and graded public schools and three churches: Catholic, Methodist and Presbyterian. City owns water works system and electric lighting plant is under private ownership.

Medford—Altitude 1,337 feet. Population 8,840 (U. S. census 1910). Local estimate 10,500. On main line of Southern Pacific Railroad; western terminus of Pacific & Eastern, which taps great timber belt in upper Rogue river district, and terminus of Rogue River Valley Railroad, with daily 10-train service to Jacksonville, the county seat. In midst of extensive and exceedingly fertile section of Rogue River Valley, especially adapted to fruit raising, particularly apples, pears, peaches and small fruits, and to dairying and general farming. Mining is also an important industry in the near vicinity. Exhibits of products, including fruits in carload lots, have been awarded first prizes at leading apple shows of the West for three consecutive years. City owns gravity water works system and electric lighting plant is under private ownership. Streets improved with hard surfaced pavement, well lighted and city has good sewer system and cement sidewalks. Has high and graded public schools and one sectarian school (Catholic) and 12 churches, including Baptist, Catholic, Christian, Episcopal, Methodist, Episcopal, Methodist (South), Methodist (Free) and Presbyterian; fine hotels and business blocks and beautiful homes. Irrigation necessary for assurance of best results in all fruit products and is practiced generally throughout the valley. Average annual rainfall 27.21 inches.

U. S. Weather Bureau, District Forester's office and Pathologist's office located here. Claim is made that within a 50-mile radius of Medford there is a greater diversity of resources and opportunities than can be found within 50 miles of any other city in the world.

Phoenix—Population 250 (U. S. census 1910). On main line of Southern Pacific Railroad. In upper Rogue River Valley

and in center of extensive and fertile agricultural and horticultural district and the leading industries are farming, grazing and fruit growing. Electric lighting plant is owned by private parties. Has graded public school and two churches: Christian and Presbyterian.

Other prominent trade centers of the county are: Butte Falls, Sams Valley, Siskiyou, Talent and Trail.

JOSEPHINE COUNTY.

Southwestern Oregon; Siskiyou mountain region; in Rogue River Valley.

County Seat—Grants Pass.

Population—9,567; 91% American born. Of the foreign born about one-third is German and the remainder are English, Irish, Scandinavians, Canadians and Swiss.

Transportation—Main line of Southern Pacific traverses northeastern portion of the county through Rogue River Valley.

Water—Rogue river and its numerous tributaries, including the Illinois river, furnish an abundant supply of water for domestic, irrigation and other purposes, and there are approximately 35,000 horsepower available for development in the Rogue river within this county, near Grants Pass.

Roads—There are 300 miles of public highways, 200 miles of which are in good condition.

Timber—Natural growth is sugar pine, yellow pine, fir, black oak, white oak, ash, alder, cedar, manzanita, laurel, spruce and lilac. A large portion of the county is covered by a wealth of merchantable timber.

Minerals—Gold (placer and quartz), silver, copper, limestone, sandstone, granite, marble, serpentine and traces of coal constitute the chief minerals of the county. County stands first in the state in placer gold production and second in quartz production.

Lands—The general surface of the county is mountainous, interspersed with numerous fertile valleys, plateaus and slopes. The valleys of the Rogue, Applegate and Illinois rivers and Williams creek contain some 50,000 acres of practically level and very productive land. Soils: Red and deep in the foothills and of rich loam on the bottom lands, both of excellent texture and easy of cultivation. Fruits, especially apples and peach-

es, vegetables and hay are the principal crops; the soil is naturally adapted to alfalfa, hops, sugar beets, melons, potatoes, sorghum and berries. Grapes of the best quality are produced in this county. Average value of farm lands, cultivated and uncultivated, \$41.58 per acre (U. S. census 1910.)

Fuel—Wood is principal fuel used and costs \$4.50 to \$5.50 per cord.

Industries—Mining, lumbering, farming, dairying, fruit growing, poultry raising and livestock. Fruit growing industry is growing very important in this section of the Rogue River Valley, and in the Illinois, Applegate and other valleys.

Ten acres, intensified cultivation; to 40 acres, diversified farming, will support average family and yield good profits. Average value farm lands \$41.58 per acre, cultivated and uncultivated (U. S. census 1910.)

Average daily wage for skilled labor, \$3.27; unskilled, \$2.00.

The Josephine County Caves, rivaling in importance the Mammoth Caves of Kentucky, are located in the Siskiyou Mountains, 33 miles south of Grants Pass, and are reached by wagon road and mountain trail from this point. They are under the jurisdiction of the United States Government and are attracting tourists and sightseers from great distances. Game fish and wild game are found in great variety.

For information address: Grants Pass Commercial Club; Wolf Creek Commercial Club.

Newspapers will send copies: Rogue River Courier, Oregon Observer, Pacific Outlook, Grants Pass.

CITIES, TOWNS AND VILLAGES.

Grants Pass—(County Seat)—Altitude 963 feet. Population 3,897 (U. S. census 1910). Local estimate 5,432. On

main line of Southern Pacific Railroad and on Rogue river in Rogue River Valley. Is shipping center and distributing point for extensive agricultural, mining and lumbering activities. The principal industries of the surrounding section are fruit growing, diversified farming, dairying, lumbering and mining. Leading fruit products are apples, peaches, pears, grapes and small fruits, strawberries, etc., which attain a high state of cultivation. Alfalfa is also an important crop in this section. Famous caves of Josephine county, consisting of many miles of underground passages and chambers, resplendent with stalactites and crystals and rivaling the Mammoth caves of Kentucky, are reached by wagon road and pack mule from this point through wild and picturesque scenery. City has improved and well-lighted streets, sewerage system, cement sidewalks, etc. Has high and graded public schools

and eight churches: Baptist, Catholic, Christian, Episcopal, Methodist (North and South), Methodist (Free) and Presbyterian. Rogue river furnishes an abundant water supply in addition to excellent salmon and trout fishing within city limits. Average annual rainfall 32.20 inches. Growing season is long and produce matures early.

Wolf Creek—Altitude 1,318 feet. Population 60. On main line of Southern Pacific Railroad, 25 miles north of Grants Pass. Fruit growing, poultry raising, general farming, dairying, lumbering and mining are the principal industries. Graded school in which high school branches are taught. Religious service every Sunday. Good store, hotel, etc. No saloons.

Other important trading points in the county are Applegate, Galice, Kerby, Leland, Merlin, Placer, Waldo and Wilderville.

UMPQUA RIVER VALLEY.

Temperature Averages for the Section.

Roseburg—July Max. 80°, Min. 52°; Jan. Max. 47°, Min. 35°.

DOUGLAS COUNTY.

West central Oregon; Umpqua Valley; Pacific Ocean on west.

County Seat—Roseburg.

Population—19,674; 89% American born. Of the foreign born about one-fourth is German; the rest are English, Scandinavians, Irish and Canadians.

Transportation—Southern Pacific Railroad traverses county from north to south. Umpqua river, which empties into Winchester Bay and Pacific Ocean on western boundary, is navigable for considerable distance inland but not to a point where railroad connection can be made.

Water—Umpqua, Calapooia rivers and Cow and Myrtle creeks and other small streams afford an abundant supply of water for domestic, irrigation and power purposes. Mountain streams capable of developing approximately 150,000 horsepower, of which fewer than 1,200 have been utilized. Good, soft water is found at a depth of a few feet.

Roads—County expends \$150,000 annually in construction and maintenance of public highways, which are in fair condition generally.

Timber—Natural forest growth in-

cludes fir, spruce, cedar, hemlock, laurel, yellow and sugar pine and oak. One of the leading counties of the state in point of wealth of merchantable timber.

Minerals—Gold, silver, cobalt, cinabar, copper, platinum, nickel, coking coal, marble, limestone and cement deposits developed only in a small degree. Gold, silver and copper mining are important industries. Many mineral springs with curative qualities exist in the county.

Lands—Surface: Level, rolling and mountainous. Soils: Deep alluvial in the valleys; rich in all of the chemical essentials and highly productive. The south central part has an especially rich soil adapted to fruit culture. Reddish clay loam in foothills. An excellent quality of grape is produced in this county; also apples, pears, peaches and other orchard crops and small fruits. Average value farm lands \$26.17 per acre, cultivated and uncultivated (U. S. census 1910.)

Industries—Lumbering, all branches of agriculture and horticulture, salmon fishing and packing, mining, rock quarrying, and the raising of poultry, sheep, goats (wool and mohair), horses, hogs, and cattle. Poultry raising, fruit growing and dairying, are the most important

industries. Turkeys in flocks of several hundred are herded upon the "range" like sheep and many carloads are shipped out of the valley during November and December to supply holiday trade. In lower altitudes of the valley the growers of strawberries and other small fruits and vegetables have the advantage of an early maturing season and are able to reach the market in advance of other sections, thus insuring highest market prices.

Fuel—Wood is the principal fuel used and costs about \$5.00 per cord.

Ten to 40 acres, diversified farming, is sufficient for needs of ordinary family and will yield good returns.

Average daily wage skilled labor \$3.75; unskilled \$2.50.

Southern Oregon Fair and the Strawberry and Rose Carnival are held at Roseburg in May each year.

For information address: Cottage Grove Commercial Club; Glendale Commercial Club; Oakland Commercial Club; Riddle Development League; Roseburg Commercial Club; Sutherlin Commercial Club.

Newspapers will send copies: The Non-Parial, Drain; Weekly News, Glendale; Weekly Mail, Myrtle Creek; Weekly Advance, Oakland; Weekly Tribune, Riddle; Daily News, Weekly Review, Roseburg; Weekly Sun, Sutherlin; Weekly Courier, Yoncalla.

CITIES, TOWNS AND VILLAGES.

Canyonville—Altitude 767 feet. Population 149 (U. S. census 1910). Six miles from Riddle, the nearest railroad point, on main line of Southern Pacific Railroad. Industries: Lumbering, farming, mining, fruit raising and stock raising. Good dairy country surrounding. Has high and graded public school and two churches: Baptist and Methodist.

Drain—Altitude 300 feet. Population 335 (U. S. census 1910). Local estimate 600. On main line of Southern Pacific, 36 miles from head of navigation on Umpqua river. Surrounding country is especially adapted to fruit culture. Industries are fruit culture, dairying, lumbering, light farming and stock raising. Fruit growers have advantage of early ripening season. Large body of merchantable timber contiguous. Is within the turkey-raising section of the county. Gravity water system is under private ownership. Has high and graded public schools and seven churches, including Adventist, Christian and Methodist. Average annual rainfall 38 inches.

Gardiner—Population 391 (U. S. census 1910). On Winchester Bay, near mouth of Umpqua river, future waterway outlet for products of valley and county. Principal industries are lumbering, salmon fishing and packing, dairying, general farming. Graded public school and two churches: Baptist and Methodist. Has improved and well-lighted streets and other municipal improvements.

Glendale—Altitude 1,425 feet. Population 646 (U. S. census 1910). On main line of Southern Pacific Railroad. Industries are mining, lumbering, light farming and stock raising. City owns gravity water works system; electric lighting plant privately owned. In heart of rich mining and timber section. Has high and graded public schools and two churches: Lutheran (Norwegian) and Presbyterian. Average annual rainfall 40.69 inches. Enjoys the great advantages of early-ripening and long-growing season.

Myrtle Creek—Altitude 637 feet. Population 429 (U. S. census 1910). On main line of Southern Pacific Railroad and on Umpqua river. Electric lighting plant and hydraulic water system are owned privately. Industries are lumbering, dairying, fruit growing and general farming. Has high and graded public schools and five churches: Baptist, Christian, Methodist (North and South) and Presbyterian. Surrounded by large territory of rich and fertile agricultural lands and fruit growing and diversified farming are in the ascendancy. Poultry industry is important and is in flourishing condition.

Oakland—Altitude 454 feet. Population 467 (U. S. census 1910). Local estimate 800. On main line of Southern Pacific Railroad. Industries are diversified farming, fruit and truck growing, poultry raising, dairying and livestock. Largest turkey shipping center on Pacific Coast. Surrounded by large timbered area. Has high and graded public schools and four churches: Baptist, Episcopal, Methodist and Presbyterian. Average annual rainfall 34 inches; stock conditioned for early shipment in advance of other sections.

Riddle—Altitude 705 feet. Population 187 (U. S. census 1910). On main line of Southern Pacific. Distributing center for large contiguous mining district and lumber camps. Goat and sheep industry is growing in importance and conditions very good for dairying. Industries are lumbering, mining, stock raising, general

farming and fruit raising. Mining in early stages of development. Has water works system. High and graded public school and one church, non-sectarian. Plenty of water available for irrigation and power purposes is found in Cow Creek.

Roseburg—(County Seat)—Altitude 485 feet. Population 4,738 (U. S. census 1910). Local estimate 6,000. On main line of Southern Pacific Railroad and on Umpqua river. In central portion of Umpqua Valley. Large timbered area contiguous and rich agricultural country surrounding for which Roseburg is the principal shipping point and distributing center. Industries are fruit culture, agriculture, livestock, lumbering, dairying, poultry raising, floriculture and viticulture. Electric lighting and power plant and water works system under private ownership. Vast water power available and large cement and fireclay deposits in near vicinity. Has high and graded public schools and one private school (Catholic). Has 11 churches in which all the leading denominations are represented. City has well-lighted, parked and paved streets, sewer system, cement sidewalks and other modern municipal improvements. Southern Oregon Fair and Strawberry and Rose Carnival, two festal events, are held here annually, the latter early in May. Average annual rainfall 34.67 inches. Small fruits and vegetables benefitted by early maturing and marketing conditions. School census shows increase in popula-

tion of 15% annually the past three years, according to local claims.

Sutherlin—Population 600 (local estimate). On main line of Southern Pacific Railroad and on Calapoopia river. In center of large agricultural section adapted to fruit culture and other profitable industries; also center of large turkey raising and other poultry raising and marketing section. Large patented process fruit preserving plant is located here. Berries, garden truck, etc., receive benefit of early maturing and marketing advantages. Both the Umpqua and the Calapoopia rivers furnish abundant supply of water for domestic and irrigation purposes, as well as available power for manufacturing purposes. Electric lighting and new water works systems are under private ownership. Has graded public schools and churches.

Yoncalla—Altitude 352 feet. Population 233 (U. S. census 1910). On main line of Southern Pacific Railroad. In center of rich agricultural section and lumbering, fruit growing, stock raising and agriculture are the leading industries. In midst of good dairying section and livestock, especially cattle, horses, sheep, goats and swine, does exceptionally well. Gravity water system under private ownership. Has high and graded public schools and two churches: Methodist and Presbyterian.

Other important trading points in the county are: Camas Valley, Coles Valley, Comstock, Dillard, Galesville, Hawthorne, Hoaglin, Lookingglass.

WILLAMETTE VALLEY.

Temperature Averages for the Section.

Portland—July Max. 78°, Min. 56°; Jan. Max. 44°, Min. 34°.
Albany— July Max. 82°, Min. 51°; Jan. Max. 46°, Min. 34°.

BENTON COUNTY.

In Willamette Valley; east slope Coast mountains; on Willamette river.

County Seat—Corvallis.

Population—10,663; 88% American born. Of the foreign born one-third is German and the balance are principally English, Canadian and Scotch.

Transportation—On West Side division of Southern Pacific, of which it is the southern terminus, and is junction point with the Corvallis & Eastern Railroad, which operates from Yaquina Bay on coast to the heavily timbered belt

on the west slope of the Cascades in Linn County. Portland, Eugene & Eastern (Southern Pacific) operates electric line from Corvallis to Monroe and is extending same, to Eugene, where it will connect with the main line to Portland. Oregon Electric (Hill system) operates branch five miles from main line to Corvallis. The Willamette river which forms the eastern boundary of county, is navigable the greater part of the year.

Water—Willamette river, Alsea river, Yaquina, Mary's, Long Tom, Luckiamute and other rivers and streams furnish

FACTS REGARDING POPULATION OF OREGON—U. S. CENSUS.

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POPULATION.

COUNTY.	TOTAL.		1910		1900		Rural per Square Mile. 1910	Foreign Born. 1910	American Born. 1910
	1910	1900	*Town. 300 or More.	Rural.	Town. 300 or More.	Rural.			
Baker.....	18,076	15,597	8,823	9,253	7,494	8,113	3.023	3,711	14,365
Benton.....	10,663	9,706	5,057	5,606	2,162	4,544	8.15	1,280	9,383
Clackamas.....	20,931	19,658	7,001	22,930	3,866	15,792	12.21	8,979	20,952
Clatsop.....	16,106	12,785	11,359	4,747	8,361	4,384	5.78	5,637	10,469
Columbia.....	10,589	6,237	3,483	7,087	833	5,404	10.71	3,597	6,983
Coos.....	17,959	10,324	9,087	8,872	3,294	7,030	5.44	3,592	14,367
Crook.....	9,815	3,964	1,642	7,373	656	3,308	.95	838	8,477
Curry.....	2,044	1,868		2,044		1,868	1.37	388	1,976
Douglas.....	19,674	14,506	7,069	12,663	2,093	12,507	2.57	2,164	17,510
Gilliam.....	3,701	3,201	1,004	2,697	368	2,813	2.24	518	3,183
Grant.....	5,607	5,048	712	4,895	345	5,603	1.08	953	4,654
Harney.....	4,099	2,598	804	3,155	547	2,051	.82	678	3,481
Hood River.....	8,016	†	2,331	5,685	†	†	10.47	962	7,054
Jackson.....	25,769	13,698	16,182	9,574	5,785	7,913	3.38	2,633	23,123
Josephine.....	9,567	7,517	3,897	5,670	2,299	5,227	3.24	861	8,706
Klamath.....	8,554	3,970	2,758	5,796	447	3,523	.97	1,711	6,843
Lake.....	4,658	2,847	1,251	3,407	761	2,086	.43	468	4,192
Lane.....	33,783	19,904	15,265	18,518	5,089	14,535	4.02	3,715	30,068
Lincoln.....	5,587	3,575	1,262	4,325	802	3,273	4.31	1,183	4,404
Linn.....	22,902	18,603	7,805	14,857	5,617	12,986	6.62	3,946	18,716
Malheur.....	8,601	4,203	2,093	6,508	445	3,758	.86	860	7,741
Marion.....	39,750	27,713	19,644	20,130	6,603	21,110	18.87	7,976	31,804
Morrow.....	4,357	4,151	889	3,468	1,446	3,005	1.71	523	3,834
Multnomah.....	229,261	103,187	218,536	12,725	90,426	12,741	28.20	76,928	149,333
Polk.....	13,469	9,623	4,747	8,722	2,966	6,937	12.30	1,347	12,122
Sherman.....	4,242	3,479	1,106	3,136	657	2,820	3.75	509	3,733
Tillamook.....	6,266	4,471	1,352	4,914	834	3,637	4.37	1,754	4,512
Umatilla.....	20,309	18,040	8,723	11,586	6,539	11,510	3.65	2,843	17,466
Union.....	16,191	10,070	8,635	7,556	4,531	11,539	3.62	1,457	14,734
Wallowa.....	8,364	5,538	2,760	5,604	898	5,142	1.78	502	7,862
Wasco.....	16,336	13,199	10,779	5,557	4,644	8,555	2.37	2,124	14,212
Washington.....	21,522	14,467	4,924	16,598	2,076	12,391	22.70	6,241	15,281
Wheeler.....	2,484	2,443	421	2,063	308	2,135	1.21	174	2,310
Yamhill.....	18,285	13,420	8,490	9,795	3,490	9,930	13.70	2,743	15,542
Total.....	672,765	413,536	395,238	277,527	175,366	238,170	2.5	153,678	519,092

*City and town population is defined as places having 300 inhabitants or more.

†Hood River County was part of Wasco County in 1900.

City and town population, percentage 58.7%.

Rural population, percentage, 41.3%.

Foreign born population, percentage, 22.8%.

American born population, percentage, 77.2%.

an abundance of water for all purposes and power facilities when developed. Sulphur springs north of Corvallis.

Lands—Surface: Level, rolling, hilly to mountainous. Soils: Prairie bottoms of rich, dark loam, highly productive and adapted to all kinds of grains, hays, grasses, small fruits, vegetables, etc. Hills of reddish clay loam of excellent character and suitable to fruit culture, general farming, dairying, etc. Average value farm lands \$39.48 per acre, cultivated and uncultivated, U. S. census 1910.

Industries—Lumbering, brick and tile manufacturing, agriculture, dairying, livestock and farming. Products: Small fruits, grains, vegetables, flax, fruits, wool and dairy products.

Fuel—Wood is principal fuel used and costs \$3.00 to \$5.00 per cord.

Average daily wage for skilled labor \$3.15; unskilled \$2.25.

Oregon State Agricultural College and United States Experiment Station are located at Corvallis.

Benton County awarded first premiums on displays of agricultural and horticultural products at State Fair at Salem in 1907, 1908, 1910, 1911 and 1912. Individual fruit displays awarded gold medals at Lewis & Clark Centennial at Portland in 1905.

Ten to 40 acres sufficient for support of ordinary family under diversified and intensified farming and will yield good profits. For general farming 60 acres and upwards.

For information address: Corvallis Commercial Club; Monroe Commercial Club; Philomath Commercial Club.

Newspapers will send copies: The Gazette-Times, Benton County Republican, Corvallis; Monroe Leader, Monroe; Weekly Review, Philomath.

CITIES, TOWNS AND VILLAGES.

Alpine—Altitude 450 feet. Population 225, local estimate. Situated 20 miles southwest of Corvallis. On Portland, Eugene & Eastern Railroad. Surrounded by rich horticultural and agricultural lands and excellent body of standing timber in near vicinity. Principal industries are farming, orcharding, dairying, livestock and poultry. Has graded public school and two churches: Catholic and Methodist. Made a postoffice in 1912.

Corvallis—(County Seat)—Altitude 300 feet. Population 4,552 (U. S. census 1910). Local estimate 5,500 in 1912. Southern terminal of West Side division of Southern Pacific and junction point

on main line of Corvallis & Eastern, which connects with main line of Southern Pacific at Albany, Linn County; is a shipping point on the Willamette river. Branch line of Portland, Eugene & Eastern (Southern Pacific electric interurban) operates from Eugene to Corvallis and connects with the main line to Portland. The Oregon Electric (Hill System) Railroad, Portland to Eugene, operates a branch from its main line to Corvallis, a distance of five miles. It is surrounded by a rich and productive area of agricultural lands. The leading industries of Corvallis are lumbering, manufacturing, farming, fruit growing, dairying, livestock (dairy cattle as well as sheep and goats) and poultry raising. Oregon State Agricultural College and United States Experiment Station located here, making Corvallis the technical educational center of the Northwest. College located within city limits and property valued at \$1,500,000. Dairying, farming and fruit culture are most important industries of surrounding country. Has high and graded public schools, business college (private) and 12 churches: Baptist, Catholic, Christian, Christian Science, Church of God, Congregational, Episcopal, Evangelical, German Lutheran, Methodist Episcopal, Methodist (South), Presbyterian. City owns gravity water system. Electric lighting and power plant under private ownership. Has improved and well-lighted streets, sewer system and other modern municipal improvements. Fruit and vegetable canning factory and prune packing plant located here. Average annual rainfall 42 inches.

Monroe—Altitude 350 feet. Population 200, local estimate. On main line of Portland, Eugene & Eastern between Corvallis and Eugene, which connects with main line of Southern Pacific at Eugene and West Side division of same system at Corvallis. About 18 miles south of Corvallis and about equal distance north of Eugene. About nine miles from Junction City on main line of Southern Pacific and on Long Tom river, which empties into Willamette river ten miles north. Surrounded by rich agricultural and horticultural territory and large body of virgin timber in near vicinity. Principal industries farming, dairying, lumbering, fruit growing, flour manufacturing and livestock and poultry raising. Has high and graded public school and two churches: Catholic and Methodist. Average annual rainfall about 42 inches.

Philomath—Altitude 295 feet. Population 505 (U. S. census 1910). Local estimate 600. On main line of Corvallis & Eastern, six miles west of Corvallis, and on Mary's river. Surrounded by a very large area of fertile agricultural land and extensive timbered area in immediate vicinity. Industries: Lumbering, farming, dairying, fruit raising, live-stock and poultry culture. Philomath College, a non-sectarian Christian school,

controlled by United Brethren church, and one of the oldest educational institutions in the state, located here. Large sawmill in operation; also ax-handle factory and a creamery. Has high and graded public schools and two churches, including one established by the United Brethren.

Other important towns and trading points in the county are: Alsea, Glenbrook, Hoskins, Kings Valley.

CLACKAMAS COUNTY.

Lower Willamette Valley; on Willamette river.

County Seat—Oregon City.

Population—29,931; 70% American born. Of the foreign born about one-half is German and the remainder is principally English, Canadians, Irish, Scandinavians and Scotch.

Transportation—Main line of Southern Pacific crosses northwestern portion of county; Willamette river courses along through northwestern corner and along western border, with direct steamship service to Portland and upper valley points throughout the year. Oregon City locks, surmounting Willamette Falls and affording undisturbed navigation to upper river, purchased by Federal and State Governments and will be operated free of toll for public benefit. Oregon Electric, Portland to Eugene, crosses northwestern corner of county. Oregon City-Canemah and Cazadero, two lines of Portland Railway, Light & Power Company interurban system, operate to northwestern interior and north central interior respectively, with continuous service to and from Portland. Electric line extension (Southern Pacific) from Oregon City to southwestern extremity of county in course of construction. Mt. Hood Railway, electric, traverses northern portion of the county to Bull Run.

Water—Willamette, Clackamas, Molalla, Tualatin, Pudding and Sandy rivers and other smaller streams supply an abundance of water for logging, domestic and power facilities. Power developed and utilized on Clackamas and Willamette rivers approximates 96,995 horsepower; undeveloped on these and other streams, 67,800 horsepower. Hydro-electric power plant of Portland Railway, Light & Power Company which generates 50,000 horsepower for light and power purposes for transmission to Portland, Oregon City and other points, located on Clack-

amas river, at Cazadero, in this county. Also large power plant is located at River Mill, Estacada. Mineral Springs, with curative qualities—at one of which is the summer and health resort, Wilhoit Springs—are numerous.

Timber—Natural forest growth is fir, oak, cottonwood, ash, cedar, maple and larch. Lumbering and manufacturing of forestry products is one of the chief industries of the county. Cottonwood and balm timber, used extensively in the manufacture of paper, are found in large tracts in this county.

Lands—Surface: Level, rolling and mountainous. Soils: Red clayish loam of excellent texture and highly productive on the hills and mountain slopes. Grapes of an excellent quality are grown in abundance and sugar beets would be a profitable crop here. Average value farm land, cultivated and uncultivated, \$78.29 per acre, (U. S. census, 1910).

Industries—Lumbering, manufacturing, general farming, dairying, fruit growing, livestock (horses and cattle) and poultry raising. Bee culture is also engaged in extensively and profitably. Wheat, barley, oats, hay, vegetables, and hops are grown profitably also. Potatoes are a paying crop and prunes are produced in considerable quantity. Lumbering and manufacturing, especially paper, are most important; three paper mills, one of which is among the largest in the world, are established at Oregon City. Teasels, the thistle-like burr which is valuable for dressing cloth and in demand by fullers everywhere, are produced in abundant supply. Large woolen mill at Oregon City. Clackamas County Fair held at Canby annually.

Twenty acres, diversified and intensified farming, sufficient for needs of ordinary family and will yield good returns. Average value farm lands \$59.25 per acre, cultivated and uncultivated

(U. S. census 1910). Wood is principal fuel used and costs \$3.00 to \$4.00 per cord. Mount Hood, elevation 11,225 feet, and highest mountain in the state, located in northeastern portion of the county.

Average daily wage for skilled labor \$3.25; unskilled \$2.25.

Roads—More than 2,000 miles of public roads in the county, of which over 300 miles are improved with stone or gravel. This is one of the pioneer counties in good-roads-reform movement and large sums have been expended in permanent road improvement.

For information address: Cherryville Commercial Club; Estacada Commercial Club; Oregon City Commercial Club; Oswego Commercial Club; Sandy Commercial Club.

Newspapers will send copies: Morning Enterprise, Weekly Courier, Western Stock Journal, Oregon City; Weekly Tribune, Canby; Weekly Progress, Estacada; Weekly News, Milwaukie.

CITIES, TOWNS AND VILLAGES.

Barlow—Population 69 (U. S. census 1910). Local estimate 125. On main line of Southern Pacific and on Willamette river. In center of large agricultural section, the soil of which is adapted to intensified farming, especially small fruits and vegetables, and the growing of these, together with dairying, constitute the principal industries in and around the community. Has graded public school and two churches: Lutheran and Nazarene.

Canby—Altitude 173 feet. Population 587 (U. S. census 1910). Local estimate 1,000. On main line of Southern Pacific Railroad and near the Willamette river. Surrounded by rich and extensive agricultural area and the principal industries are agriculture, lumbering, dairying and fruit raising. Clackamas County Fair held here annually. Has graded public school and three churches: Christian, Lutheran and Methodist.

Estacada—Altitude 465 feet. Population 405 (U. S. census 1910). Local estimate 525. Surrounded by large forested area and agricultural section and the principal industries are lumbering, fruit growing, general farming, poultry raising. City owns gravity water system and electric lighting plant is under private ownership. Has high and graded public school and three churches: Church of Christ, Evangelical and Methodist. Large water power plant of Portland Railway, Light & Power Company near this city.

Milwaukie—Altitude 62 feet. Population 860 (U. S. census 1910). Local estimate 1,200. On main line of Southern Pacific Railroad and interurban electric lines from Portland, affording excellent transportation facilities in both passenger and freight service. In midst of large and rich area of agricultural land and the principal industry is small fruit culture and general farming upon a small scale. Intensive farming in general practice. Private corporation furnishes electric lighting and water facilities. Has high and graded public schools, also grange society, and four churches: Catholic, Episcopal, Evangelical and Methodist.

Oregon City—(County Seat)—Altitude 152 feet. Population 4,287 (U. S. census 1910). Local estimate, including six suburbs, 10,000. On main line of Southern Pacific Railroad and on Willamette river, with continuous service to Portland and upper valley points. First class electric interurban service to Portland, affording splendid facilities for marketing of products and cheap transportation. Manufacturing (paper and woolen fabrics), lumbering, fruit growing and general farming are the principal industries. Products: Paper, woolen goods, lumber, furniture, fruits, dairy and poultry products and vegetables. Surrounding country especially adapted to dairying, poultry and bee culture, horticulture and general farming. Abundant water power and other advantages for manufacturing enterprises. Willamette river canal and locks, owned jointly by Federal and State Governments and operated free of toll for public benefit, located here. Also immense electric energy generating plant, large woolen mill, three paper mills, one of which is among the largest in the world, operated here. City owns water works system; electric lighting and power plant under private ownership. Chautauqua Assembly is held at Gladstone Park, near this city, annually. Has high and graded public schools and one private (Catholic) school and 12 churches: Baptist, Catholic, Christian, Congregational, Episcopal, German Lutheran, German Methodist, German Presbyterian, Methodist, Presbyterian, Reformed Lutheran and United Brethren.

Oswego—Altitude 150 feet. Population 527 (U. S. census 1910). Local estimate 740. On main line of Southern Pacific Railroad and on Willamette river. Spring water is furnished by private corporation. Has one graded public

school and one private (Catholic Academy) and two churches: Catholic and Congregational. In midst of rich and extensive agricultural section and the principal industries are general farming,

fruit raising, (truck gardening, dairying and poultry raising.

Other important towns and trading points in the county are: Cazadero, Elwood, Marquam, Molalla and New Era.

COLUMBIA COUNTY.

Lower Columbia Valley and Nehalem Valley; east slope Coast Mountains; on Columbia river.

County Seat—St. Helens.

Population—10,580; 66% American born. Of the foreign born 75% is Scandinavian and the balance is made up principally of Canadians, Germans, Irish, Scotch and Swiss.

Transportation—Astoria & Columbia River Railroad (Spokane, Portland & Seattle) traverses eastern and northern boundary of the county; Goble, Nehalem & Pacific and Columbia & Nehalem Valley railroads penetrate to the interior from eastern boundary. Columbia river along eastern and northern boundaries.

Water—Columbia, Nehalem and Clatskanie rivers, the Beaver and Minoe creeks and other streams furnish an abundant supply of water for all purposes.

Timber—County has immense area of merchantable timber, the natural growths being fir, cedar, spruce, larch, hemlock, oak and hazel.

Land—Surface: Tideland, higher level and rolling lands, hilly to mountainous. Soils: Red soil, similar to "shot lands," with clay and gravel subsoil, constitutes a considerable area of the uplands of the county, which is much improved by the growing of clover and other green crops. Soils of river and creek bottoms deep loam and silt formations and very rich and highly productive. Conditions are first class for the production of garden truck, small fruits, onions, potatoes, etc. Average value of farm lands \$35.90 per acre, cultivated and uncultivated (U. S. census 1910).

Industries are lumbering, dairying, livestock, salmon fishing and packing and mining. Conditions are ideal for dairying and industry is pursued upon a large scale. Salmon fishing and packing are also very important and highly remunerative industries.

Minerals—Iron, fine building stone and some coal, the last being limited in area and not developed upon commercial scale, exist in the county.

Fuel—Wood is the principal fuel used and costs about \$3.50 per cord.

Roads—About 425 miles of public highways in the county, maintained by special tax levy, many miles of which are in good condition. Road building of a permanent character is being pushed rapidly.

Ten to 20 acres, diversified and intensified farming, sufficient for needs of average family and will yield good returns.

Average daily wage for skilled labor \$3.75; unskilled \$2.50.

Columbia County and individual exhibitors awarded premiums for dairy products and unthreshed grasses and grains at Lewis & Clark Centennial Exposition in 1905.

For information address: Houlton Commercial Club; St. Helens Commercial Club.

Newspapers will send copies: The Weekly Chief, Clatskanie; Weekly Review, Rainier; Oregon Mist, St. Helens.

CITIES, TOWNS AND VILLAGES.

Clatskanie—Altitude 50 feet. Population 747 (U. S. census 1910). Local estimate 1,500. On main line of Astoria & Columbia River Railroad and near the Columbia river. Situated at confluence of Clatskanie and Columbia rivers is shipping and distributing point for Clatskanie Valley region and the Nehalem Valley, which are rich in their dairying and agricultural resources and possibilities. Principal industries in and around the community are logging, lumbering, fishing, farming and dairying. Soils of the adjacent valleys are adapted to fruit culture, and there is a large area of logged-off lands at reasonable prices. City owns gravity water system; electric lighting plant under private ownership. Has high (four-year) and graded public schools and three churches: Baptist, Methodist and Presbyterian.

Goble—Population 329. (U. S. census 1910). On line of Astoria & Columbia River Railroad and junction point of

Goble & Nehalem Valley Railroad. Principal industries are lumbering and fishing.

Houlton—Altitude 150 feet. Population 347 (U. S. census 1910). On main line of Astoria & Columbia River Railroad and near the Columbia river. Country tributary to the city is good for general farming, fruit culture, garden trucking, dairying, poultry and bee culture. Soil is rich and does not require irrigation. Large body of virgin timber in vicinity. Industries are lumbering, stone quarrying, salmon fishing and farming. Market facilities for products good. Has graded public school and two churches: Methodist Episcopal, Methodist (Free).

Rainier—Altitude 100 feet. Population 1,359 (U. S. census 1910). On the Astoria & Columbia River Railroad and near Columbia river, with good harbor and docking facilities. Is largest town in the county and is important manufacturing and milling center. Large area of timber is accessible and country surrounding is adapted to dairying and diversified farming. Principal industries are lumbering, salmon fishing and packing, farming, dairying and livestock raising. Some iron and coal deposits in the vicinity but undeveloped. Gravity water works system owned by the city and electric lighting plant under private ownership. City has high and graded public schools and four churches: Catholic, Church of Christ, Congregational and Methodist.

St. Helens—(County Seat)—Altitude 60 feet. Population 742 (U. S. census

1910). Local estimate 1,500. Twenty-eight miles from Portland and one mile from Houlton, on the line of the Astoria & Columbia River Railroad, and on the Columbia river, with regular steamer and train service to and from the state's metropolis. Surrounded by rich agricultural and dairy country and there are many fine farms and orchards in vicinity and much improved land. Immense deposit of iron ore of high grade lies convenient for development from this point. Also numerous stone quarries in neighborhood. Principal industries in and around city are lumbering, ship building (ocean ships), rock quarrying, salmon fishing, farming and dairying. City owns water works system (gravity). Electric lighting plant is under private ownership. Has well-lighted and improved streets, sewerage system, etc. Graded public school and three churches: Congregational, Episcopal, Methodist. A huge creosoting plant was placed in operation October 1, 1912. Court house, three-story brick business block and new bank building would be a credit to a much larger city.

Vernonia—Population 69. (U. S. census 1910). Local estimate 347. On line of Astoria & Columbia River Railroad and junction point of Goble & Nehalem Valley Railroad. Principal industries are lumbering and fishing.

Mayger, Reuben, Columbia City, Fishhawk, Jewel, Mishawauka and Pittsburgh are other trade centers of the county, all of which will grow with the development of the county's resources and industries.

LANE COUNTY.

Western Oregon; head of Willamette Valley; headwaters Willamette river; Pacific Ocean on western border.

County Seat—Eugene.

Population — 33,783; 89% American born. Of the foreign born one-fourth is Scandinavian and the remainder Germans, English, Canadians, Irish, Scotch and Swiss.

Transportation—Main line of Southern Pacific crosses central portion of county, north to south. Woodburn branch of Southern Pacific, which junctions with main line at Woodburn, Marion County, runs across county to Springfield. Eugene-Klamath Falls cut-off of Southern Pacific is now being operated

to Oakridge with daily train service from Eugene. Wendling branch, Southern Pacific, operates from Eugene to Wendling, tapping heavily timbered area. The Oregon & Southeastern extends from Cottage Grove to Disston, 20 miles, to the Calapooia Mountains, reaching a rich mineral district and a fine body of timber. The Portland, Eugene & Eastern Railroad (Southern Pacific) connects Eugene and Springfield, and is constructing a line from Eugene to Monroe and Corvallis, in Benton County. Oregon Electric Railway (Hill System), with northern terminus at Portland, has extended its main line through the heart of the valley, and it is operating with 10

passenger trains daily between Portland and Eugene. Willamette Pacific Railway (owned by Southern Pacific) is constructing a line from Eugene to Coos Bay (via Siuslaw Harbor). Willamette river, under favorable conditions, is navigable to light-draft river vessels as far as Eugene. Florence, at mouth of Siuslaw river, is the county's seaport.

Water—Willamette river, McKenzie river, Siuslaw river and numerous other smaller streams afford an abundant supply of water for all purposes and contain a vast wealth of unharnessed water power. Approximately 265,000 undeveloped horsepower on the Willamette river and its chief tributary, the McKenzie, in this county. A good quality of well water is obtainable at depths of from 20 to 100 feet.

Timber—Natural forest growth is fir, cedar, hemlock, oak, ash and sugar pine. A large percentage of the county is covered by forests and logging and lumbering is the leading industry.

Minerals—Gold and silver, quicksilver, cinnabar, copper, lead, zinc and limestone and sandstone are the principal mineral products. Leading mining district in Calapooia Mountains adjacent to Cottage Grove. Mineral springs, the waters of which have excellent medicinal qualities, exist in the county. An excellent quality of mineral paint (Sienna) is mined in this county.

Roads—Public highways, in good condition, are maintained by taxation and subscription.

Land—Surface: Level and rolling valleys, hilly and mountainous. Soils: The bottom lands along the rivers are silt deposits, deep and black, and slightly loamy. They are exceedingly fertile. Rolling hill lands are deep, red loam, underlaid with clay, gravel and sandstone. There are tracts of the red "shot" soil found on the undulated lands, all of which are good for general farming, apples and fruit culture. A good system of drainage will render a considerable area of white, swale land highly productive. Average value farm lands \$39.34 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Lumbering, mining, general farming, fruit culture, livestock, sheep and wool, goats and mohair, dairying, truck gardening, hop growing, and manufacturing.

Fuel—Wood is principal fuel used and costs \$3.00 to \$4.00 per cord.

Average daily wage for skilled labor \$3.50; unskilled \$2.25.

Ten to 20 acres, intensified farming, small fruits and poultry; 20 acres and upwards, fruit, dairying and general farming, sufficient for needs of ordinary family and will yield good profits.

Oregon State University is located at Eugene, in this county. Lane County Fair, Eugene; Junction City "Punkin" Show; Springfield Harvest Festival are annual social and industrial events.

Scenery is grand; fish and wild game are found in abundance.

For information address: Eugene Commercial Club; Cottage Grove Commercial Club, Junction City Commercial Club, Springfield Commercial Club.

Newspapers will send copies: Weekly Journal, Coburg; Weekly Sentinel, Weekly Leader, Cottage Grove; Weekly Chronicle, Creswell; Daily Guard, Oregon Weekly, Daily Register, Eugene; The West, Florence; Weekly Times, Junction City; Weekly News, Springfield.

CITIES, TOWNS AND VILLAGES.

Cottage Grove—Altitude 671 feet. Population 1,834 (U. S. census 1910). In 1911 city limits were extended, adding about 800 to population. On main line of Southern Pacific. The Oregon & Southeastern Railroad runs from Cottage Grove to Disston, 20 miles into the Calapooia Mountains, in heart of Bohemia mining district and vast forest area. Preparations being made for extension westward via Siuslaw and Smith river to coast, tapping fine agricultural and timber area. Distributing and shipping center for immense lumbering and mining district and rich agricultural section. Modernly improved streets, sidewalks and sewerage system. City owns water works system. Electric lighting plant is under private ownership. Lumbering, mining, dairying, farming, fruit growing and stock raising are the principal industries. Has high and graded public schools and seven churches: Adventist, Baptist, Catholic, Christian, Christian Science, Methodist, Presbyterian. Proposed Pacific Highway passes through Cottage Grove.

Eugene—(County Seat)—Altitude 453 feet. Population 12,000 (local estimate), 9,009 (U. S. census 1910). On main line of Southern Pacific, 123 miles south of Portland and on Willamette river. Junction point of main line and Wendling branch and Eugene-Klamath Falls cut-off of Southern Pacific. Portland, Eugene & Eastern Railway (owned by Southern Pacific) operates and owns local street railway system, with inter-

urban line to Springfield and is constructing line from Eugene to Monroe and Corvallis, connecting with West Side lines of Southern Pacific at latter point. Eugene is southern terminal of Oregon Electric Railway (Hill System), operating from Portland through principal points in the Willamette Valley. Willamette-Pacific Railway (Southern Pacific) constructing line to Coos Bay, via Florence and Siuslaw Harbor, giving Eugene access to two good harbors on the Pacific Ocean. Shipping and distributing center for an immense and vastly rich agricultural, mineral and timber district. Also central point for transmission of electrical energy capable of being developed by the enormous water powers of the McKenzie and Willamette rivers, which adds to importance of city as a future manufacturing center. Chief industries: Lumbering, mining, manufacturing, farming, dairying, poultry raising, livestock, hops, fruit growing and truck gardening. Educational center with State University, Eugene Bible School (Christian), Catholic School, School for Girls (Christian), High school and five grade schools. Ten churches, embracing as many religious denominations. Lane County Fair held here yearly. City owns water works system and hydro-electric power plant on McKenzie river; also operates street lighting system and furnishes commercial light and power as well. In addition to city lighting system there is a large system under private ownership. City is modern and up-to-date, and has well paved (hard surfaced) streets, 15 miles of street railway, street lighting and sewer system and fine public buildings. Eugene has four banks with combined deposits of nearly four million dollars and is the financial center of the county.

Florence—Altitude 20 feet. Population 311. (U. S. census 1910). Near mouth of Siuslaw river, which empties into Pacific Ocean, and affords anchorage for light-draft coast-wise vessels. Large

sums of money being expended in construction of jetties for deepening of harbor, in which event Florence will become important lumber shipping port. Chief industries: Lumbering, logging, salmon fishing and packing, farming, dairying. Several beautiful summer outing resorts adjacent. City owns electric lighting plant. Has high and graded public schools and two churches: Evangelical and Presbyterian.

Junction City—Altitude 353 feet. Population 759. (U. S. census 1910). On main line of Southern Pacific Railroad; two miles from Willamette river, three miles from Long Tom creek. Trading center for large area of country in all directions. Farming, stock raising and fruit growing are the principal industries in surrounding country. Water works system and electric lighting plants under private ownership. Has high and graded public schools and several churches, including Baptist, Christian, Danish Lutheran, Methodist, Methodist (South), and others.

Springfield—Altitude 476 feet. Population 1,838. (U. S. census 1910). On Woodburn-Natron branch of Southern Pacific Railroad and connected with Eugene, on the main line of the Southern Pacific, by Portland, Eugene & Eastern (electric) Railroad. Industries: Lumbering, mining, dairying, fruit growing and stock raising. Rich agricultural and lumbering country contiguous. Good streets, sidewalks and sewer system. Water works system and electric light and power plant are under private ownership. Has high and graded public schools (State University at Eugene only three miles distant by trolley line) and several churches, including Baptist, Christian, Free Methodist and Methodist.

Other important towns and trading points in the county are: Coburg, Creswell, Deadwood, Elmira, Fallcreek, Foley Springs (mineral water), Goshen, Mapleton, Natron, Pleasant Hill, Wendling.

LINN COUNTY.

Western Oregon; in Willamette Valley; on Willamette river.

County Seat—Albany.

Population—22,662; 87% American

born. Of the foreign born about one-third is German and the remainder is composed principally of Canadians, English, Austrians, Irish, Swiss and Scotch.

Transportation—Main line of Southern Pacific crosses county from north to south; Corvallis & Eastern crosses the valley from Pacific Ocean on the west into the heavily timbered section in the Cascade Mountains; junctions with the Southern Pacific at Albany and skirts along northern boundary of the county. Woodburn-Natron branch of the Southern Pacific crosses the county, from north to south, through rich timber and agricultural section, a few miles east of and parallel to the main line of the Southern Pacific, with which it is connected at Albany by branch line from Lebanon. The Oregon Electric, (Hill system) traverses western part of county, with branch line from Albany to Corvallis, Benton County. Willamette river forms western boundary of the county and is navigable for several months of the year.

Water—Willamette, Calapooia and Santiam rivers, with their numerous tributaries, furnish an abundant supply of water for all purposes. Approximately 20,000 horsepower, undeveloped, exists in the Santiam river and on Calapooia creek, and less than 1,800 horsepower has been developed and utilized upon these streams. Mineral springs, possessing curative qualities, exist in the county at Sodaville (created a state preserve for public benefit) and at Cascadia and other localities.

Timber—Natural growth consists of red, white and yellow fir, spruce, hemlock, cedar, yew, alder, maple, oak, ash, balm and willow. Lumbering is one of the most important industries of the county, and the balm trees are converted into paper pulp in the county also.

Minerals—Gold (quartz) and a fine quality of building stone comprise the principal mineral products of the county.

Lands—Surface: Level, rolling hills and mountainous. Soils: For the most part basaltic, with underlying sandstone and gravel. Prairie land is rich, dark, clayey loam of the general character of the entire Willamette Valley. In the central western part is a light loam, black in color, deep and rich, with a natural growth of fir, maple, oak and ash, and is well drained. Fruits, vegetables—especially potatoes—hay and grain, do well on this soil, as do also hops; flax could be grown profitably. On the ridges in the foothills is a red shot soil, ideal for orchards. Average value farm lands \$45.34 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Farming, fruit growing, lumbering, stock raising, manufacturing (lumber, machinery, paper and woollen goods), fruit packing and preserving, hop culture, sheep and wool, goats and mohair, are the chief industries and products of the county.

Fuel—Wood is principal fuel used and costs \$3.00 to \$4.50 per cord.

Ten to 20 acres, intensive cultivation, sufficient for needs of ordinary family and will yield good profits on the investment.

Scenery is grand and hunting and fish conditions are first class.

Manufacturers' Exposition and Albany Chautauqua Assembly held at Albany annually, as are also the Poultry Show, Apple Show and the Industrial School Fair. Linn County Fair, annually at Scio; Strawberry and Stock Shows, annually at Lebanon, and Potato Fair at Harrisburg.

For information address: Albany Commercial Club; Brownsville Commercial Club; Halsey Commercial Club; Harrisburg Improvement League.

Newspapers will send copies: Daily Democrat and Daily Herald, Albany; Weekly Times, Brownsville; Weekly Bulletin, Harrisburg; Weekly Advocate, Weekly Express, Weekly Tribune, Lebanon; Santiam News, Scio.

CITIES, TOWNS AND VILLAGES.

Albany — (County Seat) — Altitude 220 feet. Population 4,275 (U. S. census 1910). Local estimate 7,000. (Discrepancy accounted for because the corporate limits have not been extended for over 20 years and suburbs have been greatly enlarged.) On main line of Southern Pacific and at its junction with Corvallis & Eastern railroad. Branch line connects with Woodburn-Natron branch at Tallman. Oregon Electric (Hill system) in operation from Portland to Eugene, via Albany, with branch line from this point to Corvallis. Forty passenger trains pass every day over these lines. Willamette river navigable the greater part of each year. Farming, fruit growing, dairying, lumbering and manufacturing are the principal industries in and around the city. Surrounded by vast and fertile agricultural section and is central distributive and shipping point for same, including large lumbering district. Has high and graded public schools and two private academies: Albany College (Presbyterian) and Benedictine Sisters (Cath-

lic). Fourteen churches: Baptist, Catholic, Christian, Episcopal, Lutheran, Methodist (three), Presbyterian, United Presbyterian, Universalist. City has improved and well-lighted streets, cement sidewalks, sewerage system as well as other modern municipal improvements. Water works system and electric lighting plant are under private ownership. Manufacturers' Exposition, Chautauqua Assembly, Apple Show, Poultry Show, and Industrial School Fair are held here annually.

Brownsville—Population 919 (U. S. census 1910). On Woodburn-Natron branch of the Southern Pacific. Albany is the nearest junction point on the main line. On Calapooia creek, tributary of Willamette river, which affords ample supply of water for all purposes and power for operation of the mills. In midst of large agricultural, horticultural, livestock, lumbering, dairying and sheep raising district. The products from these, together with manufacturing, comprise the chief industries. Water works and electric lighting plants under private ownership. City has two high and graded public schools and five churches: Baptist, Catholic, Christian, Methodist and Presbyterian.

Halsey—Altitude 310 feet. Population 337 (U. S. census 1910). On main line of Southern Pacific, six miles from Willamette river. Is in midst of rich and extensive agricultural, horticultural and dairying district. Water works under private ownership. Has high and graded public schools and three churches: Baptist, Christian and Methodist.

Harrisburg—Altitude 325 feet. Population 453 (U. S. census 1910). Local estimate 600. In midst of rich dairying, fruit, diversified farming, stock raising and hop growing section. On main line of Southern Pacific and the Oregon Electric railroads and on the Willamette river. Valuable water powers are undeveloped within its boundaries. Water works system under private ownership, consisting of wells and gasoline and electric power pumping plant. Has high and graded public schools and three churches: Christian and Methodist (North and South). Has electric light plant, improved streets and sewer system and two banks, national and state.

Lebanon—Altitude 350 feet. Population 1,820 (U. S. census 1910). On main line of Woodburn-Natron branch of the Southern Pacific Railroad and is the

eastern terminus of branch line of Southern Pacific which junctions with the main line at Albany. The Santiam mountain wagon road, the principal highway leading from the Willamette Valley to Central Oregon, starts from this point. In the midst of large farming, dairying and fruit growing district. Lumbering and manufacturing are among the principal industries; one of the largest paper mills on the coast located here. Water works and electric lighting plants under private ownership. Good water power possibilities in the vicinity. Has high and graded public schools and six churches: Baptist, Catholic, Christian, Methodist Episcopal, Methodist (South) and Presbyterian. Lebanon Strawberry Carnival and Stock Show held here annually.

Selo—Altitude 360 feet. Population 295 (U. S. census 1910). On Woodburn-Natron branch of the Southern Pacific and three miles from Shelburn, nearest point on line of Corvallis & Eastern. Situated in good farming, dairying, fruit growing, hop growing and lumbering district. Electric lighting plant and gravity water system are under public ownership. Has high and graded public school, two church buildings and four religious denominations: Baptist, Catholic, Christian and Presbyterian. Linn County Fair is held here annually.

Sodaville—Population about 110 (U. S. census 1910). About $4\frac{1}{2}$ miles southeast of Lebanon, the nearest railroad point and the terminus of branch of Southern Pacific Railroad, connecting with the main line at Albany. In the foothills of the Cascade Mountains and surrounded by splendid farming country in which farming, dairying, fruit raising and lumbering are the leading industries. Low, rolling hills are adapted to production of apples, pears, plums, cherries and all kinds of small fruits; valley lands produce abundant crops of hay, oats, wheat and garden truck. Dairying is the leading industry. Soda springs, water of which contains recognized medicinal properties, located here. Were developed by the state and set aside as a preserve and maintained for the benefit of the public. Is a popular summer and health resort. Has two church buildings used by three denominations; has graded public school in which high school courses are taught.

Other towns and important trading points in the county are: Crawfordsville, Lyons, Tallman, Tangent, Shedd.

MARION COUNTY.

West central Oregon; center of Willamette Valley; on Willamette river.

County Seat—Salem.

Population—39,780; 80% American born. Of the 20% foreign born one-third is German and the remaining two-thirds are principally English, Canadians, Scandinavians, Swiss, Austrians, Irish, Scotch and Russians.

Transportation—Main line of Southern Pacific traverses county from north to south; Woodburn-Natron branch of same system joins main line at Woodburn, in this county, and operates southward, 12 miles to the east. Oregon Electric, (Hill System) operates from Portland to Salem and southward through the valley to Albany and Eugene. Salem, Falls City & Western, affiliated with Southern Pacific, has its present eastern terminus at West Salem and is constructing a steel bridge across the Willamette river into Salem City, and will extend its line eastward across the central part of the valley through Silverton; Fir branch of Southern Pacific, just completed, connects Silverton and other points on Woodburn-Natron branch direct with main line at Salem. S., F. C. & W. line operates westward from Salem to Dallas and Black Rock, at summit of Coast mountains, in Polk county. Portland, Eugene & Eastern (Southern Pacific) with railroad properties in Lane, Linn and Benton Counties, owns Salem urban and interurban railway system and is projecting a series of interurban extensions to tap rich fruit and agricultural territory in immediate vicinity of Salem and to connect up valley properties with direct and through line to Portland. Steamboats ply the Willamette river between Salem and Portland throughout the year.

Water—Willamette river, Santiam river, Pudding river, Abiqua, Breitenbush, Silver, Mill and other creeks afford an abundance of pure mountain water for domestic and other uses, and for irrigation purposes, where desired, and a great wealth of undeveloped water power for manufacturing purposes. There is approximately 100,000 horsepower available in the Willamette and Santiam rivers alone, while but 5,000 has been utilized. Ground water exists all over the county at depths of from 20 to 100 feet and in great quantities.

Timber—Natural forest growth includes red and yellow fir, white and yellow pine, spruce, cedar, oak, ash, maple, willow, yew, myrtle, balm and cottonwood. Lumbering along the Santiam, Pudding and Willamette rivers is among the most important industries. Vast areas of merchantable timber exist in foothills of mountains and along streams of county.

Minerals—Extensive gold, silver and copper mining prospects are in the infancy of their development, and some coal deposits of good quality exist in the county. Mineral springs, with excellent medicinal properties, exist in county, the most notable being Breitenbush Hot Springs, situated in Cascade National Forest Reserve. An excellent quality of mineral paint (Sidera) is mined and manufactured in commercial quantities in county.

Lands—Surface: Valley bottoms level and gently sloping; in eastern portion it is rolling, hilly and broken. Soils: Western part is a deep and rich gray clayish loam with clay and gravel subsoil, well supplied with plant food and rich in humus. In vicinity of Woodburn the soil has a high percentage of humus, potash and lime, and is excellent for fruit. The soil of the red hills near Salem and Silverton, western central, is easily cultivated and is especially adapted to fruits and vegetables. Average value farm lands \$73.40 per acre, cultivated and uncultivated (U. S. census 1910.)

Industries—Lumbering, mining, agriculture, horticulture, viticulture, dairying and livestock, including draft horses and thoroughbred dairy cattle. The highest standard of perfection is attained in the production of thoroughbred goats and sheep in this section of the Willamette Valley. They are shipped to all parts of the United States and to foreign countries for breeding purposes. Wheat, oats, fruit, hops and hay are the principal crops. The hop acreage of Marion county is about 11,000 acres, the largest in the state, and the best quality of hops in any part of the world is produced here. The prune and dairy industries are producing large profits for the farmer, and the walnut industry, while still in its infancy, is being rapidly developed. Flax for fibre equal to that of the leading

flax-producing countries of the world, is grown in this county. The finest grades of apples, pears, peaches, prunes, cherries, grapes, and small fruits, are produced.

Size of farm needed: Five, 10, 20 acres, for intensified farming, fruit or poultry; 20 to 40 acres, for fruit, hops and dairying; 50 acres and upwards for general farming.

Fuel—Wood is principal fuel used and costs \$3.50 to \$5.50 per cord.

Roads—Much money and labor have been expended upon the public highways, and there are many miles of first class macadamized roads in the county.

Marion County has received highest awards for exhibits of various products at many Expositions. Marion County Jersey bull awarded world's championship at the Louisiana Purchase Exposition at St. Louis, Mo., 1904.

For information address: Mt. Angel Commercial Club; Aurora Commercial Club; Donald Commercial Club; Salem Board of Trade; Silvertown Commercial Club; St. Paul Commercial Club; Sublimity Commercial Club; West Stayton Commercial Club.

CITIES, TOWNS AND VILLAGES.

Aurora—Altitude 114 feet. Population 190 (U. S. census 1910). Local estimate 390. On main line of Southern Pacific Railroad midway between Portland and Salem. Farming and lumbering are the principal industries. In midst of good agricultural and fruit district. Hops is one of the principal crops and dairying one of the most profitable industries. City owns water works system; electric lighting plant is under private ownership. Has graded public school and two churches: Lutheran and Presbyterian.

Donald—Altitude 120 feet. Population 150, local estimate. On main line of Oregon Electric Railway, 23 miles north of Salem and 27 miles south of Portland. Extensive area of good agricultural territory is devoted to the production of all kinds of grains, hay, clover, hops, fruits, berries, potatoes and vegetables of all kinds, which are produced abundantly and profitably. Dairying, hogs, sheep, goats and poultry are also engaged in extensively. Has graded public schools and one church, Presbyterian. Electric light plant and water works system under private ownership.

Gervais—Altitude 212 feet. Population 276 (U. S. census 1910). On main line of Southern Pacific and three miles

from Oregon Electric. Surrounded by splendid agricultural and fruit country. Hops are raised in this vicinity in considerable quantity, also hay, oats, wheat and other general farm products. Dairying is also important industry. Electric lighting plant and water works system are owned privately. Has graded public school and four churches: Adventist, Catholic, Congregational and Methodist.

Jefferson—Altitude 183 feet. Population 415 (U. S. census 1910). On main line of Southern Pacific Railroad. In midst of excellent farming and dairying district and valuable water powers in vicinity. Lumbering, milling, dairying, farming, stock raising and fruit growing are the principal industries. City owns electric lighting plant and water works system. Has high and graded public schools and three churches: Catholic, Evangelical and Methodist Episcopal. Some large dairy ranches in vicinity.

Marion—Altitude 337 feet. Population 120, estimated. Has graded public school and two churches: Friends and Presbyterian. Industries: Dairying, fruit growing, farming and poultry raising.

Mt. Angel—Altitude 485 feet. Population 545 (U. S. census 1910). On Woodburn-Natron branch of Southern Pacific Railroad, seven miles east of Woodburn, junction point with main line. Farming and dairying are the principal industries. Surrounding country especially adapted to general farming, fruit raising and dairying, all of which are engaged in extensively. Some hops raised here, too. City owns water works system; electric lighting plant is under private ownership. Has graded public school. Mt. Angel Academy and Mt. Angel College, oldest established Catholic educational institutions in the northwest, are located here. Catholicism is the predominating religious creed in this section and a new cathedral has just been completed and dedicated which is one of the largest and best in the northwest.

Salem—(Capital City of State and county seat of Marion County)—Second city in size in state. Population 14,094 (U. S. census 1910), 18,000 local estimate. Fifty miles south of Portland. On main line of Southern Pacific Railroad (12 trains daily to and from Portland); division point of Oregon Electric Railroad (20 trains to and from Portland daily, 10 to and from Albany and Eugene.) Portland, Eugene & Eastern Railroad (Southern Pacific), owns city urban and interurban

electric railway system. Salem, Falls City & Western (Southern Pacific) has eastern terminus at West Salem; is constructing steel bridge to span Willamette river into Salem City. Connections and terminal facilities under franchise of P. E. & E. with extensions to Fir and Silverton. Situated on Willamette river with daily steamboat service to Portland and upper river points throughout the year. Chief industries are manufacturing, diversified farming, dairying, fruit growing, poultry and livestock raising, lumbering and fruit packing and shipping. Ishop center of Willamette Valley and the state; also prune growing and shipping center (over 10,000 acres of prunes grouped in one district in immediate vicinity of the city); the finest quality of apples, pears, grapes, cherries, all kinds of berries and small fruits, vegetables, etc., are produced in abundance. Excellent grades of flax and hemp are produced here. Exhibits of fibre and the finished products made from flax produced in this section won high recognition in competition with products of leading foreign countries at the St. Louis, Portland and Seattle international expositions. Capital building and all state institutions, except State University, Agricultural College and Normal School, are located here; also Willamette University, oldest sectarian educational institution in the Northwest (Methodist), and United States Indian Training School, second largest in country, is located five miles north of city. Sacred Heart Academy (Catholic) is also one of best in the state. Oregon State Fair is held here annually, and Salem Cherry Fair, a notable social and industrial season of festivity; is an annual July event, from which, as well as for the superior quality of fruit produced in this section, the city has gained the title of "Cherry City of the World." Fruit and vegetable growers have the advantage in their marketing of an early ripening and long growing season, the average latest killing frost in Spring being April 10, and the earliest average killing frost in Autumn being November 2. Average annual rainfall 40 inches. Only state-owned tuberculosis sanitarium on the coast is located here. Has high and graded public schools, normal training school, business college and school for deaf, mute, blind and feeble-minded (State). City has over 15 miles of street railways over 30 miles of business and residence streets; alleys of city are paved; concrete sidewalks, modern sewerage sys-

tem, wide and well-lighted streets and all other municipal improvements. Abundant water supply and power for manufacturing purposes exists within easy reach of the city. Water works system (pumping) and electric lighting and power plant are under private ownership. Twenty-seven churches are located here, representing all of the leading religious denominations, and eight public school buildings, including a new high school costing \$125,000. One of only two existing pre-cooling (U. S.) and fruit shipping stations in existence is located here. Fruits are shipped to all of leading fruit markets of world under direct supervision of Fruit Growers' Association. Hundreds of tons of prunes are exported to Europe annually from this section and 76 tons of Royal Ann cherries were shipped (under contract) to California this season for Maraschino preserving purposes. Dairying is an important industry of contiguous country; as is livestock (especially pure bred horses, sheep, goats, swine, dairy and beef cattle—wool and mohair production) and poultry raising. Lumbering and manufacturing are among the leading industries.

St. Paul—Altitude 125 feet. Population 103 (U. S. census 1910). Main line of Southern Pacific 9 miles, and Oregon Electric Railway $6\frac{1}{2}$ miles to the east: one mile from Willamette river, with daily steamboat service to Portland, Salem and way points. Electric railway connection in good prospect. Extensive area of surrounding country is devoted to production of all kinds of grains, hay, clover, alfalfa, hops, fruits, berries, potatoes and vegetables, which are produced in abundance. Dairying, hog, sheep, goat and poultry raising very profitable. Oldest brick church (Catholic) in the state is located here—erected about 1845 and valued at about \$20,000. Has graded public school and Catholic Academy, just completed, and two churches.

Silverton—Altitude 227 feet. Population 1,588 (U. S. census 1910). Local estimate 2,000. On Woodburn-Natron branch of Southern Pacific which connects with main line at Woodburn; also connected with main line at Salem via Fir branch of same system. In midst of rich and extensive farming, fruit and hop-raising section, heavily timbered area immediately contiguous. Principal industries: General farming, fruit and hop growing, dairying, livestock and poultry, lumbering and milling. Silver

creek, which flows through city, affords abundant power for manufacturing purposes and plentiful supply of water for logging purposes. Is objective point for electric railway extension projected from Salem and Oregon City, Clackamas County, respectively. Has high and graded public schools and Christian, Norwegian Lutheran and Methodist churches. Large acreage in vicinity devoted to propagation of seed of Crego aster, well known commercial variety of that flower, for a flower specialist.

Stayton—Altitude 375 feet. Population 703 (U. S. census 1910). One mile from main line of Corvallis & Eastern (Southern Pacific) Railroad, which connects with the main line at Albany, Linn County, and four miles east of West Stayton on Woodburn-Natron branch of Southern Pacific. On Santiam river containing vast amount of water power in vicinity and in midst of rich and extensive farming, dairying, fruit raising and lumbering region. Has high and graded public schools and four churches: Baptist, Catholic, Christian and Methodist.

West Stayton—Population 250. On Woodburn-Natron branch of Southern Pacific, four miles west of Stayton and 14 miles east of Salem. Is center of large irrigation project embracing approximately 20,000 acres of rich agricultural lands, the first unit of which has been completed and in operation. Has graded public schools and one church. Electric line to Salem projected.

Sublimity—Altitude 213 feet. Population 138 (U. S. census 1910). Four miles from Aumsville on Woodburn-Natron branch of Southern Pacific, and four miles from Kingston, on Corvallis & Eastern, nearest railroad points. In heart of rich agricultural section and dairying, farming and fruit raising are the principal industries. Grains, fruits,

and vegetables of all kinds; wheat, oats, rye, barley, hops, flax and potatoes are the principal products. Has graded public school and one church: Catholic.

Turner—Population 191 (U. S. census 1910). On main line of Southern Pacific. Surrounded by rich agricultural, fruit and dairy country and farming, fruit growing, livestock and dairying are the principal industries. Has graded public school and three churches: Christian, Methodist and Presbyterian. Christian church tabernacle, where annual state conventions of this denomination are held, is located here.

Woodburn—Altitude about 200 feet. Population 1,616 (U. S. census 1910). Local estimate 2,000. On main line of Southern Pacific and junction point of Woodburn-Natron branch of same system. Also connected, by electric spur line, with main line of Oregon Electric, Portland to Eugene, at West Woodburn, and connection is made with every train in both directions. The Portland, Eugene & Eastern (Southern Pacific), another electric line is under construction. Two miles from Pudding and 10 miles from Willamette rivers. Surrounded by vast area of highly productive farming, fruit raising and dairying country which yields profitable returns under proper cultivation. Is distributive point for large territory and several small inland towns and villages. Business streets are paved and water works system is under private ownership. Has high and graded public schools, Catholic parochial school, and eight churches: Adventist, Catholic, Christian, Episcopal, Methodist Episcopal, Methodist (Free), Presbyterian and Saints of God.

Other important towns and trading centers in the county are: Aumsville, Brooks, Butteville, Chemawa (U. S. Indian Training School), Detroit, Gates, Marion, Mehama, Mill City, Niagara, Scotts Mills.

MULTNOMAH COUNTY.

Western Oregon; lower Willamette Valley; on Willamette and Columbia rivers.

Population — 226,621 (U. S. census 1910); 66% American born. Of the foreign born one-fourth is German and the remainder Scandinavians, English, Irish, Scotch, Swiss, Russians, Austrians and Italians.

Transportation — Great Northern, Northern Pacific, Oregon-Washington Railroad & Navigation Co., Southern Pacific, with their respective tributary and affiliated steam and electric railroads, are transcontinental railway systems reaching to East, North and South, that traverse this county. (For detailed transportation facilities see data for

Portland, the metropolis and chief distributive center of the county and the state). Steam and electric lines which serve the territory of the county, all of which center in Portland, are: Astoria & Columbia River (S. P. & S.), Portland to Astoria and Seaside; Pacific Railway & Navigation Co., Portland to Tillamook Bay points; Oregon Electric, Portland to Eugene; United Railways, Portland to Wilkesboro, Washington County; West Side division of Southern Pacific, Portland to Corvallis; Portland Railway, Light & Power Company, electric interurban lines, Portland to Oregon City and Canemah, to Cazadero, to Fairview and Troutdale; Mt. Hood Railway, Portland to Bull Run, at foot of Mt. Hood. Willamette river, which empties into the Columbia, in northwestern extreme of county, flows through western portion of county, and Columbia river, which empties into Pacific Ocean, forms northern boundary of the county. Both streams navigable to ocean-going vessels as far as Portland.

Water—Columbia, Willamette and Sandy Rivers and their tributaries afford an abundant supply of water for domestic and all other uses and an enormous amount of undeveloped water power—approximately 226,000 hydro-horsepower on the Columbia and Sandy rivers, undeveloped—for manufacturing purposes. Bull Run water, finest in the world, is used exclusively to meet domestic demands.

Timber—Fir is the natural forest growth, which is extensively milled and worked up into all products known to the lumbering industry; 25,755 acres of timber lands in National Forest Reserve.

Minerals—Iron ore is found; excellent qualities of building stone, fire clays, basaltic rocks, etc., are extensively quarried.

Lands—Surface: Valleys level and rolling; Eastern part hilly and mountainous. Soils: Western soil best adapted to fruits, vegetables, flax, hemp, grains and hay. The soil in Eastern part is similar to Hood River County—of red lava origin, rich and of excellent physical texture—and is especially adapted to fruits, hops, hemp, flax, onions and potatoes. Average value farm lands \$228.61, cultivated and uncultivated (U. S. census 1910).

Fuels—Wood, coal and oil. Wood \$5.00 per cord and upwards; coal, \$7.00 per ton and upwards; oil (crude) 90 cents per barrel. Approximately 4,500,000 barrels of crude oil are consumed in

Portland and vicinity every year. **Industries**—Lumbering, manufacturing, ship building, agriculture, horticulture, dairying, floriculture, shipping, small fruits, gardening, fruit packing and canning.

Roads are maintained by general taxation and are in fine condition generally. Scores of miles of macadamized highways have been built.

Size of Farm Needed—Two to 10 acres for truck gardening and intensified cultivation; 10 to 20 acres for dairying and fruit growing.

Average daily wage for skilled labor \$3.50; unskilled \$2.00.

Multnomah County Fair, held annually at Gresham; Rose Festival, Oregon State Poultry Show, Dog Show, Cat Show, Manufacturers' and Industrial Fair, Annual Stock Breeders' Sale, held annually at Portland.

For information address: Gresham Commercial Club, Portland Commercial Club, Oregon Development League, Portland Chamber of Commerce, St. Johns Commercial Club.

CITIES, TOWNS AND VILLAGES.

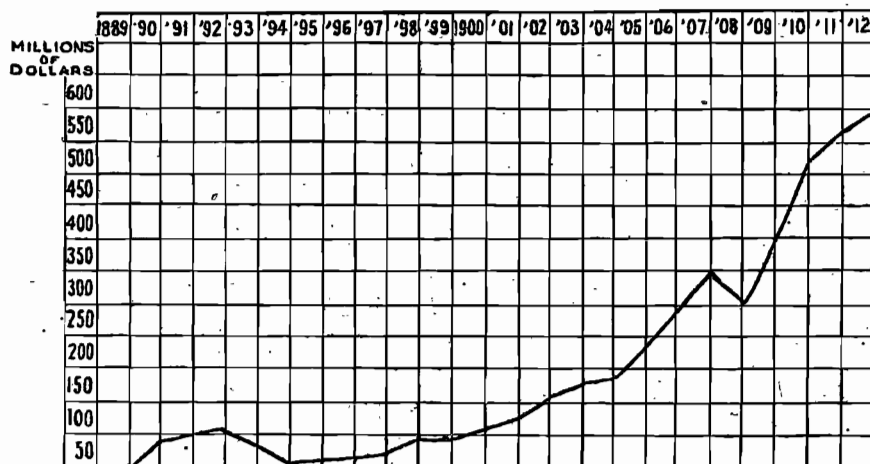
Fairview—Altitude 120 feet. Population 204 (U. S. census 1910). Near the Columbia river. On main line of O.-W. R. & N. Railroad and interurban system of Portland, Railway, Light & Power Co. Principal industries are railroad machine shops, cheese factory, dairying, fruit growing and truck farming. Has graded public school and one church: Methodist.

Gresham—Altitude 317 feet. Population 540 (U. S. census 1910). Local census (1912) 1,066. Thirteen miles from Portland. On Portland Railway, Light & Power Co. and Mt. Hood electric railroads. Agriculture, stock raising, fruit culture, brick making and lumbering are the principal industries. Shops and car barns of Mt. Hood electric railway are here. Private corporation furnishes electric energy; water supply for domestic use is obtained from Portland's Bull Run system. Good location for dairying, poultry raising and truck gardening. Has high and graded public school and four churches: Baptist, Free Methodist, German Methodist and Methodist Episcopal. Has Grange Society and hall, and is headquarters of State Grange. Multnomah County Fair held here annually.

Linnton—Population 1,400 (local estimate). On lines of Astoria & Columbia River (S. P. & S.) Railroad and United Railways (electric interurban) and on

PORTLAND BANK CLEARINGS

SINCE ORGANIZATION OF CLEARING HOUSE (1889)



PORTLAND'S TRADE TERRITORY—240,281 SQUARE MILES.

All of Columbia Valley within the United States and Portions of Oregon and Washington, Draining Direct Into the Pacific Ocean.

LOCATION.	Exclusive Area.	Competitive Area.	Total Trade Area.
Oregon.....	75,608	15,999	91,607
Washington.....	7,289	37,690	44,979
Idaho.....	53,900	23,740	77,640
Montana.....		20,800	20,800
Utah.....		700	700
Wyoming.....		5,184	5,184
Total.....	136,768	103,513	240,281

SUMMARY.

136,768 square miles of territory, exclusively in Portland's natural jobbing territory. Over 80 per cent of all the goods sold in this territory by coast jobbing cities are sold by Portland merchants, and Portland has a controlling advantage in distributing freight rates.

103,513 square miles of territory in which Portland merchants compete for business. Portland enjoys equal distributing freight rates with other coast cities, and Portland merchants sell from 40 to 80 per cent of all the goods sold in this territory by merchants located in coast jobbing cities.

240,281 square miles of territory served by Portland jobbers.

Willamette river. Principal industry lumbering; dairying and truck gardening engaged in extensively. Has graded public school and one church: Methodist. Water works system under private ownership.

Portland—(County Seat)—Altitude 57 feet. Population 207,214 (U. S. census 1910); 257,490 (U. S. urban population.) Is metropolis of state and chief distributing center and shipping point for im-

mensely rich agricultural and forested area, aggregating 240,281 square miles; chief railroad center and fresh-water harbor for state of Oregon and the vast territory of Eastern Washington and Western Idaho and known as the Inland Empire. The Great Northern, Northern Pacific, Oregon-Washington Railroad & Navigation Co. and Southern Pacific Railroads, four great transcontinental railroad systems operating to

all points East, North and South, have their terminals here. Their laterals and affiliated lines reach every section of the state. Willamette river, which empties into the Columbia river 10 miles below the city, affords the only deep fresh-water harbor on the Pacific Coast and is besides the only outlet to the best markets of the coast, Europe and the Orient for the immense territory drained by the Willamette and Columbia rivers. All roads reach Portland on a water grade and its natural advantages as a shipping center are unsurpassed. There are 76 steam passenger trains that leave and arrive at the Portland terminals every twenty-four hours and seven interurban lines, reaching out to neighboring cities in all directions, supplement the facilities afforded by the nine steam roads. The twenty-five banking institutions of the city showed clearings aggregating \$557,933,736.69 for 1911, as against \$122,575,461.69 for 1901, an increase of \$435,000,000 in ten years. Vessels brought imports from 34 foreign countries into Portland's harbor last year and carried away exports to 15 foreign lands. Portland exported to foreign countries during the fiscal year ending June 30, 1912, 6,829,943 bushels of wheat, valued at \$5,895,993; 770,970 barrels of flour, valued at \$3,073,993, and 84,961,000 feet of lumber valued at \$930,848. Coast-wise shipments of lumber from Portland during 1912 (fiscal year ending June 30) were: 126,099,301 feet of lumber, value \$1,423,620; 2,982,075 bushels of wheat, valued at \$2,699,167, and 357,939 barrels of flour, valued at \$1,533,132. Is largest livestock market and packing center on Pacific Coast; annual livestock output of one plant in Portland increased from \$3,000,000 to \$7,000,000 in five years; \$20,000,000 has been paid out for 14,000 carloads of livestock since the establishment of the industry (2½ years—1911). Building permits for 1910-1911 aggregated \$40,829,389; public buildings and schools for the past year (1911) cost \$2,303,500; \$10,000,000 was put in dwellings in Portland in 15 months; realty transfers for 1911 aggregated consideration of \$25,271,045; building statistics from 120 of the largest cities in the United States for 1911 give Portland seventh place with an approximate total of \$20,000,000. Six steel bridges which span the Willamette river here approximate an expenditure of \$10,000,000. Leads all cities in United States in wheat exports. Headquarters of largest cereal milling company on

Pacific Coast. Leading manufacturing city of the Pacific Northwest; \$30,000,000 invested in 690 manufacturing enterprises, giving employment to 17,000 people, with annual earnings of \$11,000,000; average annual value products \$46,000,000. One hundred lineal miles of pavement were laid in 1911, and 175 miles of street improvements cost over \$7,000,000. Portland's Postoffice receipts increased from \$220,257 in 1901 to \$1,002,610.74 in 1911. A pure mountain water supply for domestic use is obtained from the Bull Run River, with a combined reservoir capacity of 190,000,000 gallons, or 67,500,000 gallons every 24 hours, sufficient for a population of 625,000 people. Industries: Manufacturing, lumbering, ship building, shipping, agriculture, horticulture, floriculture, dairying, livestock, meat packing, fruit canning and packing, truck gardening, etc. Hotel and apartment house accommodations in Portland are unsurpassed upon the Pacific Coast. Portland has three high schools, 53 graded public schools and 15 industrial schools, with a total enrollment of 30,517 for the year 1912; employs 766 teachers, with salaries ranging from \$400 to \$3,000 per annum. Has numerous private schools, colleges and academies, as follows: St. Helen's Hall, school for girls, Episcopal church; Hill Military Academy, private; Portland Academy, Presbyterian; St. Mary's Academy (girls) and Columbia University, both Catholic. North Pacific Dental College, dentistry and pharmacy; Reed College, liberal arts, and three business colleges. Lewis & Clark Centennial Exposition held here in 1905. Portland's "Rose Festival," one of the most notable social, gala and festal events held in the United States, and which has won for Portland the world-wide reputation as The Rose City, or "City of Roses," is celebrated annually. Portland is also known as the "Convention City" of the Northwest, having established an enviable reputation for warm-hearted hospitality upon past occasions, most recent of which was the reception of the national convention of the Benevolent and Protective Order of Elks, which convened here during the week of July 8 to 13, inclusive. Among the annual events held in Portland are: Oregon Irrigation Congress, February; Annual Stock Breeders' Sale, April; Dog Show; Cat Show; Oregon Poultry Association Exhibition, December. Water works system is owned by the city, and electric lighting and gas lighting plants are under private ownership.

St. Johns—Altitude 100 feet. Population 4,872 (U. S. census 1910). On O.-W. R. & N. and Spokane, Portland & Seattle railroads, and interurban electric line from Portland; also on Willamette river. Water works system and electric lighting plant are under private ownership. Principal industries: Lumbering, manufacturing, boat building, small fruit culture, truck gardening. Large meat packing plant is established on the peninsula in the vicinity of this city. Has high and graded public schools and seven churches, representing the leading religious denominations. Privately owned dry-dock here.

Troutdale—Altitude 56 to 400 feet. Population 309 (U. S. census 1910).

Eighteen miles east of Portland on the main lines of the O.-W. R. & N. Co. and Portland Railway, Light & Power Co. systems and $1\frac{1}{2}$ miles from the Columbia river. Dairying and lumbering are the principal industries, but light farming, such as market gardening, poultry raising, small fruits, etc., is engaged in extensively, and the soil of the surrounding country is adapted especially to the production of potatoes and an excellent quality of celery. Meat packing plant located here and sawmills in immediate vicinity provide large payroll. Gravity water system and electric plant under private ownership. Has graded public school and three churches: Adventist, Evangelical and Methodist.

POLK COUNTY.

Willamette Valley; east slope Coast mountains; on Willamette river.

County Seat—Dallas.

Population—13,469; 90% American born. Of the foreign born about one-fourth is Canadian and the balance is made up principally of Germans, English, Russians, Scandinavians, Swiss, Scotch and Irish.

Transportation—West Side branch of Southern Pacific passes through eastern portion of the county, north to south, and Salem, Falls City & Western, affiliated with Southern Pacific, operates from Salem, on Willamette river, westward through central portion of county, through Dallas to Black Rock at summit of Coast mountains, tapping heavily timbered and rich agricultural section. Branch of Southern Pacific traverses county from north to south parallel to West Side branch of the Southern Pacific and within distances of from two to six miles from the latter. Willamette river, on the eastern border, is navigable to steamboat traffic with daily boat service to Portland throughout the year. Independence & Monmouth interurban (steam) operates between Dallas, Independence, Monmouth and Airlie with connection with the Southern Pacific at Independence and Dallas.

Water—Willamette, La Creole, Yamhill and Luckiamute rivers, with their tributaries, afford an abundant supply of water for all purposes and possess approximately 2,500 horsepower, undeveloped, for manufacturing purposes.

A good quality of ground water is obtained at depths of from 20 to 100 feet.

Timber—Douglas fir, oak, larch, white pine, hemlock and cedar compose the principal species of natural growth forest of the county. Numerous sawmills are located in the county and lumbering and logging is one of the leading industries. The varieties of hardwoods found in the county are used in furniture manufacturing.

Minerals—Cinnabar, some iron and limestone comprise the chief mineral resources of the county; none of which is in an advanced stage of development.

Lands—Surface: Level and rolling in the valleys, hilly and mountainous. Soils: Conditions generally are the same as characterize the whole of the Willamette Valley. Bottom lands are a deep-gray loam, which is very productive of cereals. Hill soils are red in color but of different physical texture from the red hills of Washington and Clackamas counties. In the southeastern part of the county the soil is a gray loam and is an excellent soil if kept well drained. Hills in northeastern part are red in color, carry an abundance of lime and have good wearing qualities. Average value farm lands, \$54.08 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Polk county is one of the best fruit producing counties of the state. Livestock raising is carried on extensively, especially cattle, horses, sheep, goats and swine. Is especially noted for its Angora goat and mohair industries, as it

is the banner county of the state in this respect and the goats raised here have carried away the highest awards wherever exhibited, both for high standard of breed and excellent quality of mohair product. Polk county is the second county in the state in point of hop acreage and yield. Poultry raising and dairying are other important and highly profitable fields of endeavor. Lumbering is at present one of the chief industries of the county, but, as the land is logged-off it will eventually have to give way to agriculture.

Fuel—Wood is chief fuel used and costs \$2.50 to \$3.50 per cord.

Roads—Public highways of the county are fully up to the standard of the best in the valley and are maintained by general taxation and subscription. There are many miles of permanently improved roads in the county.

Ten to 20 acres, diversified and intensified farming, sufficient for ordinary family; for general farming from 40 to 80 acres and upwards are required.

Mountain streams are alive with trout, the rivers abound with game fish and wild fowl, and the fields and mountains of the county contain a plentiful supply of the larger and four-footed varieties of game.

Oregon State Normal School is located at Monmouth in this county.

Average daily wage: skilled labor, \$3.25; unskilled, \$2.00.

For information address: Dallas Commercial Club; Independence Commercial Club; Falls City Commercial Club; Monmouth Commercial Club.

Newspapers will send copies: Polk County Observer, Polk County Itemizer, Dallas; Weekly News, Falls City; Weekly Enterprise, Independence; Weekly Herald, Monmouth.

CITIES, TOWNS AND VILLAGES.

Dallas—(County Seat)—Altitude, 340 feet. Population, 2,124 (U. S. census 1910). Local estimate, 2,500. On West Side division of Southern Pacific; on line of Salem, Falls City & Western, affiliated with Southern Pacific, and on branch line of Southern Pacific operating from Whiteson, Yamhill County, to Monmouth, in southern part of county. Also on Independence & Monmouth Interurban Railroad. Principal industries of surrounding country are lumbering, agriculture, horticulture, sheep and goat raising, and dairying. Contiguous territory rich in agricultural possibilities. Is distributive and shipping center for

goat and mohair, sheep and wool and hop industries, all of which are great wealth producers. Is also important lumber manufacturing and shipping point. Gravity water works system is owned by the city and electric lighting plant is owned by private parties. Has high and graded public schools, two private academies, Dallas College and Creole Academy (United Evangelical church) and seven churches: Adventist, Baptist, Catholic, Christian, Christian Scientists, Evangelical, Methodist and Presbyterian.

Falls City—Altitude 355 feet. Population, 989 (U. S. census 1910). Local estimate, 1,100. On line of Salem, Falls City & Western Railroad, three miles from the western terminus. Surrounded by wealthy forested area which will eventually become a rich agricultural territory. Principal industry at present is lumbering, but dairying, farming, fruit growing and livestock are engaged in extensively. Annual shipment of lumber from one mill in this vicinity is approximately 20,000,000 feet. Soil is adapted to fruit culture, especially grapes. Excellent quality of building stone exists in vicinity. Electric lighting plant is under private ownership. City has high and graded public schools and four churches: Adventist, Christian, Methodist (Free) and Methodist.

Independence—Altitude, 76 feet. Population, 1,160 (U. S. census 1910). Local estimate, 1,200. On West Side branch of Southern Pacific Railroad; the Independence & Monmouth Interurban, and the Willamette river with daily steamboat service to Portland throughout the year. In the center of vastly rich agricultural section and is chief distributive point for same. Principal industries are hop growing, dairying, fruit growing and diversified farming. Is principal hop shipping point of the county because of having the advantage of water and railroad transportation. Electric lighting plant and water works system under private ownership. Has high and graded public schools and five churches: Baptist, Catholic, Christian, Methodist and Presbyterian.

Monmouth—Altitude about 100 feet. Population, 493 (U. S. census 1910). Is only two miles from the Willamette river and is junction point of lines of West Side division of Southern Pacific and Independence & Monmouth Railroads. Surrounding country is rolling, with deep, rich soil and is especially adapted to fruit growing and dairying. Diversified farming and horticulture are the princi-

pal industries. Oregon State Normal School is located here, one of the leading institutions of its class on the Pacific Coast. There are good oil prospects in vicinity, experts having declared it will be found in great quantities, and a considerable flow of natural gas has already been struck by a prospecting company. Water works system and electric lighting plant under private ownership. Has high and graded public schools and three

churches: Baptist, Christian and Evangelical. Average value farm land, cultivated and uncultivated, \$97.16 per acre, (U. S. census 1910).

Other important towns and trading centers in the county are: Black Rock (western terminus of Salem, Falls City & Western Railroad and important lumbering camp), Buell, Perrydale, Rickreall, farming center, large flouring mills; Suver.

WASHINGTON COUNTY.

Location—Western Oregon: Lower Willamette Valley.

County Seat—Hillsboro.

Population—21,522; 71% American born. Of the 29% foreign born about one-half is German and the remainder is principally Swiss, Scandinavians, Canadians, English, Irish and Austrians.

Transportation—West Side division of the Southern Pacific—two branches out of Portland—Willamette Valley branch crosses southeastern corner of county; Hillsboro branch crosses county from east to northwest, thence to Pacific Coast. Oregon Electric Railway operates from Portland to Hillsboro, and United Railways (both are electric lines affiliated with the Hill systems) operates from Portland to Banks in this county. Tualatin river, which empties into Willamette river in Clackamas County on the east, is navigable for a distance of about 20 miles into the southeastern portion of the county.

Water—The Tualatin and Nehalem rivers, with their numerous tributary streams, afford an abundant supply of water for domestic and other purposes, and contain a wealth of water power practically undeveloped. Surface, or ground water, is obtainable at shallow depths in all portions of the county.

Timber—There are 167,000 acres of timber lands in this county, the natural growth of which is principally fir, is under private ownership. Practically all confined to the eastern slope of the Coast range of mountains, the summit of which marks the western boundary of the county.

Minerals—Some coal, as well as extensive deposits of granite and sandstone, of excellent quality for building purposes, are found in the county, but the coal is not mined in commercial quantities.

Lands—Surface: For the most part level and slightly undulating; mountain-

ous in western portion. Soils: In southwestern part loam and red clay. The former is a gray loam; mixture of soapstone with some sand and feldspar, fine for fruit, grain and potatoes. In the central northern portion exists the characteristic bottom land. This soil is very rich and will grow fruits, grains, vegetables and hops in great abundance.

Industries—General farming, dairying, stock raising, fruit growing, truck gardening and poultry raising. Almost all varieties of fruits thrive and attain a high standard of quality in this county. Dairying is the most important industry, and all the products of this line are produced on a large scale. Claim is made to possessing the largest milk condensing plant on the Coast. This county is also important as a hop-growing locality, and the walnut-growing industry is rapidly assuming prominent proportions. Sheep and wool and goats and mohair are also produced extensively.

Roads—There are about 1,700 miles of county roads in good condition which are maintained by general and special taxation and subscription.

Fuel—Wood is the principal fuel used and costs \$2.50 to \$4.00 per cord.

Pacific University, affiliated with the Congregational church, and one of the leading educational institutions on the Coast, is located at Forest Grove, in this county, as is also Tualatin Academy, the preparatory department of the former.

Size of farm needed: Ten to 20 acres are sufficient for the needs of the ordinary family and will yield a good margin of profit if devoted to diversified and intensified farming, and from 20 acres upwards are sufficient for dairying and general farming purposes.

For information address: Beaverton Commercial Club; Forest Grove Commercial Club; Gaston Improvement Club;

Hillsboro, Washington County Development League; North Plains Commercial Club; Sherwood Commercial Club; Scholls Commercial Club of Portland's Garden.

Newspapers will send copies: Forest Grove Progress, Washington County News, Forest Grove; Hillsboro Argus and Hillsboro Independent, Hillsboro.

CITIES, TOWNS AND VILLAGES.

Beaverton—Altitude about 150 feet. Population 386. On West Side branch of Southern Pacific, Portland to Hillsboro, and on Hillsboro division of Oregon Electric (Hill system), eleven miles from Portland. In midst of agricultural and timbered section and the principal industries are lumbering, fruit growing, gardening and brick and tile making. Beaverdam soil of Tualatin Valley is found here which produces good crops of onions, asparagus, rhubarb, horseradish and celery, which is marketed in Portland. Has graded public schools and two sectarian (Catholic) educational institutions, and four churches: Congregational, Methodist, Catholic and Adventist.

Cornelius—Altitude 204 feet. Population 459. On West Side branch of Southern Pacific Railroad and on Hillsboro branch of Oregon Electric, about three miles from Hillsboro and 25 miles from Portland. Agriculture, horticulture, hop growing, dairying and stock raising are the principal industries, but country is particularly adapted to fruit and hop growing and dairying. Town has high and graded public schools and four churches: Catholic, Methodist, Lutheran and Adventist.

Forest Grove—Altitude 215 feet. Population 1,772. On West Side division of the Southern Pacific and western terminus of Forest Grove-Hillsboro line of the Oregon Electric, which afford good connection with Portland markets. In midst of extensive agricultural and dairying section, and these represent the principal industries of the community, while fruit growing, hops, vegetable raising and poultry culture figure prominently among the profitable vocations. Main business streets are improved with hard surface pavement and well lighted. City owns gravity water works system and electric lighting plant. Has high and graded public schools and six churches: Congregational, Methodist, Christian Science, Free Methodist, Adventist and Christian. Pacific University (Con-

gregational) and Tualatin Academy (preparatory) are located here.

Gaston—Altitude 118 feet. Population 150. On West Side division of the Southern Pacific Railroad. In midst of large extent of agricultural territory and the principal industries of the surrounding country are fruit and vegetable growing, farming, dairying and lumbering. Diversified farming is engaged in extensively. Water works system and electric lighting plant are under private ownership. Has graded public school and two churches: Congregational and Evangelical.

Hillsboro—(County Seat)—Altitude 120 feet. Population 2,016. On West Side branch of Southern Pacific and junction point of Pacific Railroad & Navigation Railroad (Southern Pacific), and on line of Oregon Electric (Hill system) line to Portland. In center of large area of rich agricultural lands and contiguous to heavily timbered section. Principal industries are lumbering, dairying, hop and fruit growing and general and diversified farming. Hops are extensively grown in this section and lands adjacent to the city are especially suited to their culture. City owns water works system and electric lighting plant. Has high and graded public schools and seven churches: Congregational, Methodist, Christian, Baptist, Catholic, Evangelical and Methodist (South).

North Plains—Population about 150. On line of United Railways (Hill system) Portland to Wilkesboro and in Tualatin Valley, noted for its splendid agricultural development and advantages for horticulture. Has graded public school and one church.

Sherwood—Altitude about 130 feet. Population 115. On West Side branch of Southern Pacific, five miles west of the Willamette river and about 25 miles southwest of Portland. Located in good farming and lumbering district and these are the two leading industries, although dairying and fruit growing are engaged in quite extensively. Three large sawmills are located here; also fruit drying, canning and packing plant. Has graded public school and three churches: Congregational, German Lutheran and German Evangelical.

Scholls—In southeastern part of county, on Tualatin river, which empties into Willamette river. Dairying and diversified farming are the principal industries. Located in center of rich beaverdam section which is especially suited to the growing of onions, potatoes, veg-

etables and fruits and the finest quality of these products are grown here. Walnut culture and hop growing are also important industries of the surrounding country. Town has graded public school and church, representing different denominations. Large brick and tile factory is located here.

Tualatin—Altitude 128 feet. Population about 300. On West Side branch of Southern Pacific and on line of Oregon

Electric Railroad. Lumbering, farming, dairying and fruit and vegetable growing are the principal industries. In southeastern portion of county and near Tualatin river. Large sawmill is located here. Has graded public school and two churches: Methodist and Congregational.

Other important towns and trading centers in the county are: Banks, Buxton, Cornelius, Dilly, Dixie, Glenwood, North Plains and Wilkesboro.

YAMHILL COUNTY.

Willamette Valley; east slope Coast mountains; on Willamette river.

County Seat—McMinnville.

Population—18,285; 85% American born. Of the foreign born one-fourth is German and the balance is made up principally of Scandinavians, Canadians, English and Irish.

Transportation—Yamhill division of Southern Pacific traverses eastern portion of county; West Side branch of Southern Pacific from north to central portion of county, connecting with Yamhill division at St. Joseph; Sheridan & Willamina branch of Southern Pacific, which connects with Yamhill branch at Sheridan Junction, operates along southern boundary of county 15 miles to Willamina. Carlton & Coast Railroad, constructed primarily for logging purposes, operates from Carlton up the north fork of the Yamhill river 15 miles to Fairdale, in heart of Coast mountains. Willamette river, navigable to Portland throughout the year, marks eastern boundary of county, and the Yamhill river, which empties into the Willamette near Dayton, is navigable to McMinnville under favorable conditions, 15 miles into the interior.

Water—Willamette and Yamhill rivers, with their numerous tributary streams, afford an abundant supply of water for all purposes and ample water power is awaiting development, especially upon the upper Yamhill.

Timber—Western part of county is covered by a vast area of virgin timber, the principal varieties of the natural growth consisting of fir, oak, maple and cedar. Lumbering is in an advanced state of development. Hazelwood attains a large growth in this region and the hoop pole industry is an important one.

Minerals—Coal is mined upon a lim-

ited scale and gold, silver, granite, sandstone and gypsum are found in different sections of the county. Precious metals not extensively mined, but the stone deposits are valuable for building purposes. An excellent grade of shale is also quarried and used in the manufacture of brick, tile and sewer pipe. Fireclay also exists in large beds and a high grade of polished brick is manufactured upon a large scale.

Land—**Surface**: Generally level and rolling in eastern and central portions, hilly to mountainous in western portion. **Soils**: Gray, gravelly loam, fine in texture, strong in all essential ingredients. Average depth 2 to 2½ feet. Naturally well drained and all kinds of fruits and vegetables, flax, hemp and hops do well; well adapted to prune culture and this variety of fruit is cultivated quite extensively. In uplands, red clay loam, called "shot lands," is especially adapted to fruit culture; swale or beaverdam lands in bottoms produce all varieties of vegetables in greatest abundance. Average value farm lands \$69.39 an acre, cultivated and uncultivated (U. S. census 1910).

Industries—General farming, diversified farming, fruit culture, hops, prunes, lumbering, mining, dairying and manufacturing (brick, tile, etc.) are the principal industries. All branches of agriculture are engaged in; conditions are favorable for intensive and diversified farming, with particular emphasis upon dairying and the development of breeding stock. Livestock is an important industry, especially dairy breeds of cattle and sheep and goats, the latter of which are not only valuable for their wool and mohair, but the goats are highly prized as aids in clearing land. The largest English walnut grove in the United States exists in this county and

there are also some very large apple and prune orchards.

Roads—There are 750 miles of county roads, about 100 miles being in good condition. They are maintained by general and special taxation.

Fuel—Wood is the principal fuel used and costs \$2.50 to \$4.00 per cord.

Average daily wage for skilled labor \$3.50; unskilled \$2.00.

Scenery is fine and hunting and fishing conditions are good.

Displays of varied products from this county awarded highest honors wherever exhibited, including the State Fairs at Salem, Lewis & Clark Exposition at Portland, Louisiana Purchase Exposition at St. Louis (dairy stock) and Cherry Fair at Salem. This county had the best English walnut exhibit shown at the Alaska-Yukon-Pacific Exposition at Seattle. McMinnville Horse Show and Fair is held in May each year.

Ten to 20 acres, intensified and diversified farming, and 20 acres and upwards for dairying and general farming pay good profits.

For information address: Carlton Commercial Club; Dayton Commercial Club; McMinnville Commercial Club; Newberg Commercial Club; Yamhill Development Club.

Newspapers will send copies: Weekly Standard, Amity; Weekly Sentinel, Carlton; Weekly Optimist and Weekly Tribune, Dayton; News-Reporter, Telephone-Register, McMinnville; Weekly Enterprise, Newberg Graphic, Newberg; Weekly Sun, Sheridan; Weekly Record, Yamhill; Weekly Times, Willamina.

CITIES, TOWNS AND VILLAGES.

Amity—Population 407 (U. S. census 1910). On West Side division of Southern Pacific Railroad. In midst of excellent farming country and fruit growing, dairying and agriculture are the principal industries. Large milk condenser and fruit drier are located here. Has graded public schools and three churches: Baptist, Christian and Methodist. Electric lighting plant is under private ownership.

Carlton—Altitude about 190 feet. Population 386 (U. S. census 1910). Local estimate 600. On West Side division of Southern Pacific, and on north fork of Yamhill river, 42 miles south of Portland. In center of large farming section and the principal industries are lumbering, fruit culture, livestock, dairying and agriculture. Sheep raising and wool growing are among the leading

industries and a large acreage is devoted to hop and prune culture. English walnuts thrive well and a considerable acreage is devoted to this product in this vicinity. Average annual rainfall about 40 inches. Average date latest killing frost in Spring, March 16; earliest killing frost in Autumn, November 16. Has graded public school and three churches: Baptist, Christian and Methodist. Electric lighting plant and water works system under private ownership. City bonded for new public water system.

Dayton—Altitude about 180 feet. Population 453 (U. S. census 1910). Local estimate 800. On Yamhill division of Southern Pacific, 31 miles south of Portland; at head of navigation on Yamhill river. In center of large farming and fruit growing district, and agriculture, nut culture, hops, livestock and dairying are the principal industries. Average rainfall 42 inches. Gravity water works system owned by the city. Electric lighting system. Largest fruit and vegetable evaporating plant in the world. Box and handle factories. All kinds of hay, grasses and vegetables do well here. Has high and graded public schools and five churches: Baptist, Christian, Christian Science, Evangelical and Methodist. Commercial Club occupies its own brick building.

Dundee—Altitude 219 feet. Population 196 (U. S. census 1910). Local estimate 225. On Yamhill division of Southern Pacific and near Willamette river. Situated in midst of extensive agricultural section and the principal industries are farming, dairying, fruit raising. Products: Fruits, walnuts, potatoes, grain, hops, prunes and dairy produce. Largest English walnut grove in the United States is in this vicinity. Water for domestic use is furnished from private wells. Has high and graded public school and one church: Methodist Episcopal.

La Fayette—Altitude about 190 feet. Population 412 (U. S. census 1910). On Yamhill division of Southern Pacific Railroad and on Yamhill river near its confluence with the Willamette. In midst of rich agricultural section and principal industries are dairying, farming, fruit and hop growing. Valuable undeveloped water power on Yamhill river in vicinity. Large sawmill is located here. Has high and graded public school and three churches: Evangelical, Methodist Episcopal and Presbyterian.

McMinnville—(County Seat)—Altitude

tude 182 feet. Population 2,400 (U. S. census 1910). On West Side and Yamhill divisions of Southern Pacific and at head of navigation on Yamhill river, Fifty miles southwest of Portland. In heart of rich Yamhill Valley and the principal industries are diversified farming, fruit growing, hops, prunes, walnuts, hay, grain and dairying. There are large flocks of sheep and Angora goats in this section and wool and mohair production is a profitable industry. Has broad, well lighted and well kept streets and cement sidewalks. Owns and operates electric lighting plant and mountain water supply. Has high and graded public schools and eight churches: Adventist, Baptist, Catholic, Christian, Episcopal, Evangelical, Methodist, Presbyterian. McMinnville College (Baptist) and Catholic preparatory school also located here. Average annual rainfall 44 inches. Large milk condensing plant is located here. There is also a large acreage of hops in this locality. Oregon Electric and Southern Pacific constructing electric line extensions through the city.

Newberg—Altitude about 200 feet. Population 2,260 (U. S. census 1910); 2,500 local estimate. On Yamhill division of Southern Pacific Railroad and on the Willamette river. In the Chehalem Valley, 26 miles south of Portland. Oregon Electric (Tualatin-McMinnville) division and Southern Pacific have tracks laid through city in connection with proposed extensions. In center of rich agricultural section and the principal industries are farming, dairying, livestock, fruit culture and lumber and brick manufacturing. One of largest sawmills in Willamette Valley located here. Also has machine and repair shop, large milk condensing plant, fruit canning and packing plant. English walnuts are produced in large quantities in this valley. Strawberries, loganberries and other small berries yield prolifically and ripen early in this vicinity. Pacific College, founded by the Friends, but non-sectarian, located here. Has broad, well kept and lighted streets, paved in business section, and concrete sidewalks. City owns gravity water works system; electric lighting system is under private ownership. Has high and graded public schools and 11 churches: Adventist, Baptist, Catholic, Christian, Church of Christ, German Methodist, Methodist Episcopal, Methodist (Free), Presbyterian and United Brethren.

Sheridan—Altitude 217 feet. Popu-

lation 1,021 (U. S. census 1910); Local estimate 1,300. Western terminus of Sheridan branch of West Side division of Southern Pacific and junction of Sheridan-Willamina Railroad, 57 miles southwest of Portland and on Yamhill river. In heart of rich, well-settled section devoted principally to diversified and intensified farming. Soil is favorable to fruit growing, nut culture, hop raising, small fruits and general farming, the soil being deep, well watered and naturally drained. Poultry and stock are successfully and profitably raised; bee culture and general gardening are successfully and extensively practiced. Lumbering is an important industry, there being an immense body of saw timber, including fir, larch, cedar and hemlock tributary to the town. The growing of prunes, clover, vetches and grains, dairying, sheep raising, and the culture of hops now comprise Sheridan's most extensive industries. Several thousands of acres have recently been set out to apples, prunes, pears, cherries and English walnuts in the vicinity of Sheridan. Average annual rainfall 41 inches. City owns gravity water system. Electric lighting plant is under private ownership. Electric lighted and paved streets. Large lumber mill, ice plant. Has high and graded public schools and five churches: Catholic, Christian, Congregational, Lutheran and Methodist.

Willamina—Altitude about 230 feet. Population 376 (U. S. census 1910); 600 local estimate. Western terminus of Sheridan-Willamina Railroad, which connects with Southern Pacific at Sheridan; also at juncture of the Yamhill and Willamina rivers. Surrounded by rich agricultural section and the principal industries are general farming, fruit growing, dairying and stock raising. Large body of merchantable timber tributary. Valuable undeveloped water power facilities available in vicinity. Large face-brick plant is located here. Electric lighting plant and gravity water works system under private ownership. Has graded public schools and three churches: Christian, Congregational and Methodist.

Yamhill—Altitude 210 feet. Population 325 (U. S. census 1910); 500 local estimate. On West Side division of Southern Pacific, 39 miles from Portland and 12 miles from McMinnville. Ten miles from Yamhill river. In midst of rich, well-watered and drained agricultural section, with a background of timber, and

the principal industries are lumbering, farming, fruit and vegetable growing, dairying, hops, poultry raising, etc. Primarily a grain producing section, but fruit growing, diversified and intensified farming more recently and generally adopted. Water works system and electric lighting plant are under private ownership. Average annual rainfall 35

inches; growing season about six months. Has high and graded public schools and three churches: Catholic, Christian and Methodist.

Other important towns and trading centers in the county are: Chehalem, important fruit growing district and distributing center; Whiteson and Wilsonville.

CENTRAL OREGON SECTION.

Temperature Averages for Section:

Prineville.....	July Max. 86°	Min. 42°	Jan. Max. 48°	Min. 22°
Lakeview.....	July Max. 84°	Min. 40°	Jan. Max. 39°	Min. 18°
Silver Lake.....	July Max. 85°	Min. 40°	Jan. Max. 40°	Min. 17°
Happy Valley.....	July Max. 84°	Min. 44°	Jan. Max. 40°	Min. 18°

(AND)

EASTERN OREGON SECTION.

Temperature Averages for Section:

The Dalles.....	July Max. 84°	Min. 57°	Jan. Max. 38°	Min. 26°
Lone Rock.....	July Max. 80°	Min. 43°	Jan. Max. 42°	Min. 21°
Pendleton.....	July Max. 89°	Min. 52°	Jan. Max. 42°	Min. 26°
Joseph.....	July Max. 78°	Min. 46°	Jan. Max. 32°	Min. 15°
Dayville.....	July Max. 85°	Min. 49°	Jan. Max. 44°	Min. 27°
Baker.....	July Max. 81°	Min. 51°	Jan. Max. 33°	Min. 18°
Bonanza.....	July Max. 80°	Min. 26°	Jan. Max. 35°	Min. 12°

BAKER COUNTY.

Northeastern Oregon; Blue Mountain region; on Snake river.

County Seat—Baker.

Population—18,076; 85% American born. Of the foreign born one-fourth is German and the remaining three-fourths are principally Irish, Canadian, English, Scotch, Swiss and Scandinavians.

Transportation—Oregon-Washington Railroad & Navigation Company railroad traverses county from northwest to southeast; Sumpter Valley Railroad operates from Baker, in the central portion through western part of county, and Northwestern Railway, branch of Oregon Short Line, the western terminus of which is Huntington, in this county, operates from Huntington along eastern border of county and Snake river to Homestead, in northeastern portion. Snake river navigable to small river vessels from Huntington to Ballard's Landing, along eastern boundary of county.

Water—Snake river, Powder river, Burnt river and other smaller rivers and streams afford good and plentiful supply of water for domestic, irrigation and power purposes.

Timber—County has large area of virgin forests of white and yellow pine and tamarack; lumbering is one of the chief industries.

Minerals—Gold (placer and quartz mining), silver, copper, iron, nickel, galena, coal, gypsum, cement, slag and lime. One opal mine, one fossil bed, fire-clay mine and two building stone quarries. It is the leading mining county of the state, the development of this industry being very important.

Fuel—Wood is principal fuel and costs an average of \$5.00 per cord.

Lands—Surface: Valleys, rolling hills, high plains and mountains. Soils: What is known as the Yakima loam, consisting of heavy brown to black sandy loam, which produces wild meadow grasses, alfalfa, timothy and clover. "Muck" is the name given to a soil consisting of a brown or black mucky loam; hay is the chief crop of this soil. Maricopa sandy loam and gravelly loam will produce anything in the line of hardy vegetation, but it requires irrigation. Irrigation practiced extensively in the county. Average value of farm land \$36.63

per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Mining, lumbering, sheep, cattle and horse raising, agriculture and horticulture. Products: Lumber, wool, minerals, hay, grain, vegetables, fruits and dairy products.

Average annual rainfall 13.40 inches.

Average daily wage to skilled labor \$3.55; unskilled \$2.35; miners \$3.50; farm hands \$1.00; during harvest season \$1.50 to \$2.00.

For information address: Baker Commercial Club, Baker, Oregon.

Newspapers will send copies: Bedrock Democrat, Baker City Herald, City of Baker; The Weekly Record, Haines; Pine Valley Herald, Halfway; Huntington News, Huntington; Panhandle News, Richland; Blue Mountain American, Sumpter.

Size of farm needed: Five to 10 acres for fruit and intensive cultivation; 20 acres and upwards for dairying and general farming.

CITIES, TOWNS AND VILLAGES.

Baker—(County Seat)—Altitude 3,440 feet. Population 6,472 (U. S. census 1910). 10,000 local estimate. On main line of O.-W. R. & N. Railroad and is the terminus of the Sumpter Valley Railway. Is principal shipping and distributive point for rich mining and agricultural section and for many points in Central Oregon. City owns gravity water works system; electric lighting and power plants under private ownership. Has well improved and lighted streets (six miles hard surface pavement), sewerage system and other municipal improvements. Has high and graded public schools, one private school (Catholic) and 10 churches: Adventist, Baptist (2), Catholic, Episcopal, Latter Day Saints, Methodist, Mormon, Presbyterian and Salvation Army. Fourth District Agricultural Fair is held here annually.

Bourne—Altitude 5,400 feet. Population, 77 (U. S. census 1910). Local estimate, 250. Principal industry mining. City owns electric lighting and water works system. Has one graded public school.

Copperfield—Altitude 1,800 feet. Pop-

ulation 250 (U. S. census 1910). On line of Northwestern Railway and on the Snake river. Principal industry mining. One graded public school.

Greenhorn—Altitude 6,800. Population 28 (U. S. census 1910). Principal industries, mining and lumbering. Has graded public school.

Haines—Altitude 3,334 feet. Population 423 (U. S. census 1910). Principal industry, agriculture, with hay and grain as chief crops. Surrounded by the rich agricultural land of Baker Valley. On main line of O.-W. R. & N. Railroad. Electric lighting system under private ownership. Has one graded public school.

Halfway—Altitude 2,800 feet. Population 186 (U. S. census 1910). On eastern edge of county, in center of Pine valley, a rich agricultural and horticultural section. Industries, farming and lumbering. Hay, grain and fruit are principal crops. Has one graded public school and three churches: Adventist, Christian and Presbyterian.

Huntington—Altitude 2,105 feet. Population 680 (U. S. census 1910). Division point of O.-W. R. & N. and Oregon Short Line railroads. Situated on Snake river, navigable to small river steamers along eastern border of county. Industries: Mining, farming and stock raising. Has one graded public school and three churches: Catholic, Congregational, Methodist Episcopal.

Richland—Altitude 1,900 feet. Population 334 (U. S. census 1910). In center of Eagle Valley, rich agricultural and horticultural section and is chief distributing and shipping point for same. Has one graded public school and two churches.

Sumpter—Altitude 4,429 feet. Population 643. On Sumpter Valley Railroad and in heart of rich mining and lumber district. Privately owned electric lighting and water works systems. Industries: Mining, lumber, grazing and livestock raising. Has one graded public school and four churches: Catholic, Episcopal, Methodist and Presbyterian.

Other important towns and trading centers of the county are: Bonanza, Homestead, Pleasant Valley, Rye Valley, Sparta and Whitney.

CROOK COUNTY.

Central eastern Oregon; east slope Cascade mountains.

County Seat—Prineville.

Population — 9,315; 91% American born. Of the foreign born about one-tenth is English, and the balance is made up of Swiss, German, Irish and Canadians.

Transportation—Oregon Trunk Railroad (Hill system) and DesChutes Railroad (Harriman system) enter the county from the north and traverse the central portion to Bend (150 miles from the Columbia river and their connections with two great transcontinental railroad systems), and afford the products of the Central Oregon Empire an outlet to the markets of the world. Auto stage lines from Bend and other important trade centers in the county radiate in all directions. Extension of railroads from Bend to south, east and west, and construction of other railroad lines into this region is in immediate prospect, and, in some instances, actual construction work is under way.

Water—DesChutes river, Crooked river, Metolius river, and numerous other smaller but important streams, tributary to the DesChutes, the main drainage artery, afford an abundance of pure mountain water for domestic, irrigation and power purposes. The maximum discharge of the DesChutes river is only about four times the minimum. This river and its tributaries are capable of developing over 421,000 horsepower.

Lands—Surface: In the main it consists of fertile valleys, broad plains, and easy slopes to the mountains. Soils: Volcanic ash and silt (mud or fine earth deposited from running streams or standing water) of excellent texture, light gray in color; greatly improved by use of green fertilizers. Highly productive of small fruits, hemp, hops and other agricultural crops when irrigated. Approximately 260,000 acres of arid land now in process of irrigation under the Carey Act provisions. Immense area of public lands, susceptible of cultivation under dry farming methods, open to entry under provisions of enlarged homestead act, allowing 320 acres to the person eligible to entry under the homestead laws. Average value of farm lands \$17.54, an acre cultivated and uncultivated (U. S. census 1910).

Industries—Lumbering, livestock,

(sheep and wool) and agriculture. Principal crops are hay (both grain and grass), rye, barley and oats. Cattle, sheep, horses and swine are raised extensively and profitably. Crook County is the home of the largest blooded-sheep ranch in the world. Highest awards for dry-farming products at National Dry Farm Congress at Spokane, Washington, 1910, and Colorado Springs, Colorado, 1911, and at International Dry Farming Congress at Lethbridge, Alta., 1912.

Timber—Large forest of natural growth timber in the county, consisting principally of white pine.

Minerals—Gold and silver mines in early stages of development.

Fuel—Wood, juniper and pine, is the principal fuel used.

Roads—Maintained by general taxation; in good condition; open entire year.

Forty acres, under irrigation and intensive cultivation, sufficient for support of average family and will yield profitable returns. Dry farming 320 acres.

Average daily wage for skilled labor \$3.70; unskilled \$2.35.

For information address: Bend Commercial Club; Culver Junction Development League; Laidlaw Commercial Club; La Pine Commercial Club; Metolius Commercial Club; Prineville Commercial Club; Redmond Commercial Club; Terrebonne Commercial Club.

Newspapers will send copies: The Bend Bulletin, Bend; Madras Pioneer, Madras; Crook County Journal; Weekly Review, Prineville; Terrebonne Oregonian, Terrebonne; Central Oregonian, Metolius.

CITIES, TOWNS AND VILLAGES.

Bend—Altitude 3,600 feet. Population 536 (U. S. census 1910). Southern terminus of the Oregon Trunk and DesChutes Railway lines. On the DesChutes river, which affords a plentiful supply of water for domestic use, irrigation and power purposes. Located in timber belt; two sawmills in vicinity. Principal industries: Farming, lumbering, livestock. Surrounded by many large Carey Act irrigation projects. Alfalfa, clover, oats, wheat, root crops and small fruits are the chief products. Large area of arid lands in vicinity subject to entry under the Enlarged Homestead (320-acre) Act. Irrigated area adapted to dairying, hog raising and all kinds of hay crops. Water and electric lighting

plants are under private ownership. Has high and graded public schools and three churches: Baptist, Catholic and Presbyterian. Woman's Club, Grange and numerous fraternal organizations.

La Pine—Altitude 4,200 feet. Population 50, estimated. Thirty-three miles south of Bend, present terminus of the Oregon Trunk and DesChutes Railroad and on proposed lines of extension. In midst of large Carey Act and dry farming district. Industries are lumbering and agriculture. Surrounding country, under irrigation, suited to dairying, stock raising, poultry raising, hay, grains and small fruits. Has graded public school.

Madras—Altitude 2,200 feet. Population 364 (U. S. census 1910). On lines of Oregon Trunk and Deschutes railroads. Willow creek, tributary of the Deschutes river, gives ample supply of water for all purposes. Surrounded by extensive area of irrigated and timbered lands and the industries are farming and stock raising. Has graded public school and three churches: Christian, Menonite and Methodist.

Prineville—(County Seat)—Altitude 2,860 feet. Population 1,042 (U. S. census 1910). Local estimate 1,600. Eighteen miles east of Redmond, nearest railroad point on lines of Oregon Trunk and Deschutes railroads, with prospect of direct connection immediately. The principal industries are stock raising (horses, cattle, sheep and hogs) and agriculture. Products are hay, grain and wool. Electric and gas lighting and water works plants are under private ownership. Has high and graded public schools and four churches. Large bodies of timber tributary. In midst of extensive Carey Act irrigation projects.

Redmond—Altitude 3,000. Population 800 (U. S. census 1910). On lines of Oregon Trunk and Deschutes railway. In center of large irrigation district; livestock, dairying and general agriculture (under irrigation) are the principal industries. City owns water works system and operates electric lighting plant under lease from private owners. Is shipping and distributing point for large district. Has high and graded public

schools and five churches: Adventist, Baptist, Catholic, Methodist, Presbyterian.

Sisters—Population 100, estimated. Fifteen miles west of Redmond, nearest railroad point. In large irrigation district and large timbered area adjacent. Farming and livestock are the principal industries. Has graded public school and churches.

Laidlaw—Altitude 3,200 feet. Population 49 (U. S. census 1910). Local estimate 100. On Deschutes river, four miles west of Deschutes, nearest railroad point. In midst of extensive irrigation section. Dairying, livestock and agriculture are the principal industries. Has graded public school and two churches.

Terrebonne—Altitude 2,860. Population 100. On lines of Oregon Trunk and Deschutes railways. In center of irrigation and timbered district. Dairying, livestock and agriculture are the principal industries. Contiguous territory suitable for diversified farming (under irrigation). Has high and graded public school and churches. Womans' Club and fraternal organizations.

Metolius—Division point for Oregon Trunk and Deschutes railroads. Population 200, estimated. Agriculture is principal industry of surrounding country in which dry-farming methods are practiced extensively and successfully. Wheat, oats, rye, barley, hay, alfalfa, potatoes and other vegetables are the leading crops raised. City owns water system. Has high and graded public school and one church. Dry farming experiment station is located here. One mile of cement sidewalk.

Culver—Altitude 2,625 feet. On lines of Oregon Trunk and Deschutes railroads. Surrounded by extensive area of agricultural land in the cultivation of which dry farming is followed successfully. All varieties of hardy grains, hay and fruits and vegetables are produced in this vicinity. Has graded public school, two churches, Menonite and Christian, two hotels, etc., and public water works system is under municipal ownership.

GILLIAM COUNTY.

Eastern Oregon; Columbia Valley section; on Columbia river.

County Seat—Condon.

Population — 3,701; 86% American born. Of the foreign born one-fifth is Scotch and the balance is made up of Canadians, English, Irish and Germans.

Transportation—Main line of Oregon-Washington Railroad & Navigation Company crosses northern portion of county and branch line of the same system penetrates the central portion of the county to Condon, county seat, 40 miles to the south. Heppner branch of the same system crosses the northeastern corner. Columbia river, navigable to river steamers to the mouth (Pacific Ocean), courses along northern boundary.

Water—Columbia river, John Day river, Willow creek, Rock creek, 30-Mile creek and other small streams afford an abundant supply of water for domestic, irrigation and other uses, and vast undeveloped water powers. Good water obtainable near the surface throughout the county.

Land—Surface: Level valleys and plains, rolling and hilly. Soils: Fine quality, very rich and of excellent physical texture. Humus contents exceptionally high. With good system of irrigation all kinds of vegetables, small fruits, sugar beets, grains and onions grow exceptionally well. Good fruit lands in this county suitable for apples, peaches, pears, apricots, plums and cherries. Many horses, cattle and hogs are raised in this county. Average value farm lands \$18.86 per acre, cultivated and uncultivated (U. S. census 1910).

Roads—Public highways, maintained by taxation, in fair condition.

Timber—Natural growth is pine, oak and hazel, confined to water courses. Not extensive.

Minerals—Some coal deposits exist in John Day basin but they are undeveloped and little is known concerning their extent.

Fuel—Wood and coal are the principal fuels; coal costs an average of \$9.50 per ton, and wood \$7.00 per cord.

Industries—Agriculture (especially wheat), lumbering, livestock (especially cattle, horses, hogs and sheep), dairying and fruit culture. Many horses, particularly of the heavy draft breeds, are specialized in. Gilliam County fruit took first premium at National Irrigation Congress

Exhibition at Omaha. In 1907 Condon was the largest primary wheat shipping point in the United States. One of the leading sheep and wool producing counties of the state.

Average daily wage for skilled labor \$3.50; unskilled \$2.00.

Three hundred twenty acres, dry and diversified farming, or 640 acres general farming and stock raising are considered good dividend payers in this county.

For information address: Condon Business Men's Association, Condon.

Newspapers will send copies: Condon Globe, The Condon Times, Condon.

CITIES, TOWNS AND VILLAGES.

Arlington—Altitude 281 feet. Population 317 (U. S. census 1910). On main line of O.-W. R. & N. Railroad and is junction point of the Condon branch of the same system of railroad, and on the Columbia river. City owns water works system (pumping). General farming and stock raising are the principal industries of the country contiguous, for which Arlington is the principal shipping and distributing point, as well as the rail and water gateway to the interior of the county. Surrounded by extensive area of irrigable lands suitable for diversified farming. Has high and graded public school and two churches: Baptist and Methodist.

Condon—(County Seat) Altitude 2,881. Population 1,009 (U. S. census 1910). Is southern terminus of Condon branch of the O.-W. R. & N. Railroad. Is center of vast area of livestock and hay and grain producing territory and is distributing and shipping point of southern part of the county. The principal industries of the adjacent country are stock raising and general farming. Products: Grain, hay and wool. Water works system (pumping station and reservoir) belongs to the city and electric lighting plant is under private ownership. In 1907 3,350,000 bushels of wheat were shipped from Gilliam county through Condon, and in 1909 there were 1,500,000 bushels of wheat shipped. City has high and graded public schools and one private (Catholic) school, and five churches: Baptist, Catholic, Christian, Congregational and Latter Day Saints.

Lone Rock—Population 70, (U. S. census 1910). Nearest railroad point,

Condon, is 22 miles northwest. Is trading point of rich stock country.

Mayville—Population 250 (U. S. census 1910). Twelve miles south of Condon, nearest railroad point. Is located in midst of excellent farming country, with soil adapted for fruit culture and a variety of agricultural products. Live-stock industry is also important here. Has graded public school and one church, Baptist. District Agricultural Fair is held here annually.

Olex—Altitude 700 feet. On main line of O.-W. R. & N. Railroad and for-

merly way station on stage line which existed before the advent of the railroad. Is situated in the midst of a rich irrigated fruit and alfalfa farming district. Has one graded public school and one church building.

Blalock—Is small town on the line of the O.-W. R. & N. Railroad and on the Columbia river. Is center and shipping point for large wheat growing section.

Other important towns and trading points in the county are: Ajax and Gwendolen, both farming communities.

GRANT COUNTY.

Eastern Oregon; Blue Mountain section, on John Day river.

County Seat—Canyon City.

Population—5,607; 83% American born. Of the foreign born about one-fourth is German and the remainder is principally of Canadians, English, Irish, Scotch, Scandinavians, Portuguese and Swiss.

Transportation—The Sumpter Valley Railroad, with its eastern terminus at Baker, enters the county at the central eastern border and runs in a southwesterly direction to Prairie City, in the John Day Valley. Auto and horse stage connection with other important trading centers of the Central Eastern Oregon Empire.

Water—The John Day river, the numerous tributaries of which penetrate every section of the county, supplies an abundance of pure water for domestic and other purposes and possesses vast power facilities which are awaiting development.

Roads—There are 700 miles of county roads, mostly mountainous, in fair condition and maintained by the county.

Timber—Yellow pine is the principal natural forest growth and it abounds in great quantities, both in national reserves and private holdings.

Minerals—Gold, silver, copper, cobalt, iron, nickel, sandstone and limestone are the principal mining products of the county. Gold mining is one of the chief assets of the county.

Industries—Lumbering, stock raising, mining, agriculture (mainly hay and grain), fruit culture, dairying are the principal industries. Stock raising ranks first, principally cattle and sheep, in

the order of importance, and wool is an extensive and valuable by-product.

Land—Surface: Narrow but fertile valleys, rolling hills and mountains. Soils: There is a variety of soils, but that most frequently encountered is rich in lime and phosphoric acid, and, with irrigation, is naturally well adapted to fruit growing, vegetables and corn. The John Day Valley, 60 miles long and $2\frac{1}{2}$ to 11 miles in width, is highly productive and yields splendid returns under intensive cultivation. Alfalfa, timothy and clover are raised extensively and afford the chief food for livestock. Nutritious wild grasses also abound on the bench and hill lands, making good pasture. Average value of farm lands \$10.00 per acre, cultivated and uncultivated (U. S. census 1910).

Fuel—Wood is the principal fuel used, costing from \$4.00 to \$5.00 per cord.

Forty acres under irrigation, diversified and intensified farming, to 640 acres, stock raising and general farming, yield profitable returns.

Average daily wage for skilled labor \$3.25; unskilled \$1.75; stage drivers \$35.00 to \$50.00 per month; stockmen \$30.00 to \$40.00; miners \$3.00 to \$3.50 per day.

Blue Mountain Hot Springs and Mt. Vernon Hot Springs are resorts reached by easy automobile stages from Prairie City. Fish and wild game abound in plenty in the streams and mountains of the county.

For information address: Prairie City Commercial Club or Canyon City Citizens League.

Newspapers will send copies: Blue Mountain Eagle, Canyon City; Weekly

Ranger, Long Creek; Weekly Miner, Prairie City.

CITIES, TOWNS AND VILLAGES.

Austin—Altitude 4,074 feet. Population 144 (U. S. census 1910). On line of Sumpter Valley Railroad. Is situated in a national forest reserve but much of the forest land which is capable of agricultural development, has passed into private ownership, there are also large areas of mineral lands in the vicinity awaiting development. Lumbering, gold mining and stock raising are the principal industries. Electric lighting plant and water works system are under private ownership. Has graded public school and church.

Canyon City—(County Seat)—Altitude 3,200 feet. Population 364 (U. S. census 1910). Sixteen miles southwest of Prairie City, the nearest railroad point on the Sumpter Valley Railroad. Is situated in the John Day Valley and surrounded by rich agricultural section for which it is the central trading point. Field is open for the development of fruit-culture and quartz mining. Gravity water works system is owned by the city, while the electric lighting plant is under private ownership. Is the terminus of five mail routes which distribute mail to every section of the county. The principal industries are mining, stock raising and agriculture, while dairying and fruit growing are receiving considerable attention. Has high and graded public schools and three churches: Catholic, Episcopal and Methodist.

Granite—Altitude 4,560 feet. Population 89. Sumpter, on the line of the Sumpter Valley Railroad, 14 miles southeast, is the nearest railroad point. Mining is the principal industry of this region. Gravity water system is under private ownership. Has graded public school.

John Day—Altitude 3,150 feet. Population 258 (U. S. census 1910). Fourteen miles west of Prairie City, the nearest railroad point. Surrounded by rich and extensive area of agricultural and grazing lands and the leading industries of the contiguous country are farming, stock raising and mining. Headquarters of the officers of the Department of the Interior having supervision of the forest reserves are located here. Immense forest in vicinity. Fifth Eastern Oregon District Fair held here annually. Large undeveloped coal deposits are to be found in the vicinity of this point. Electric lighting plant and water works system

are under private ownership. Has graded public school and two churches: Adventist and Methodist.

Long Creek—Altitude 3,875. Population 86 (U. S. census 1910). Thirty miles north of the John Day Valley, in the center of the northern part of Grant county. Is surrounded by a rich agricultural section and is the central trading point for that part of the county. The principal industries are stock raising and farming, while dairying is receiving considerable attention. Gravity water system is owned by the city. Has graded public school and two churches: Methodist and Adventist.

Monument—Altitude 2,800. Population 119 (U. S. census 1910). Fifty miles northwest of Canyon City on the north fork of the John Day river. Is 50 miles south of Heppner, the terminus of a branch line of the O.-W. R. & N. Railroad, which is the nearest railroad point. Is surrounded by a large area of rich agricultural and grazing lands, and its leading industries are stock raising and farming, while fruit and dairying are receiving considerable attention. Several large sheep owners reside in this locality, conditions being quite favorable to this industry. Has gravity water system under private ownership. Has graded public school and one church, Presbyterian.

Prairie City—Altitude 3,300 feet. Population 348 (U. S. census 1910). Is the western terminus of the Sumpter Valley Railroad, in the eastern part of the John Day Valley on the John Day river. It is the shipping point for the entire John Day Valley, which is rich and extensive in its agricultural resources and other possibilities, as well as for Grant County and the interior of Harney County on the south. Heavy freighting into the interior is done by four and six-horse teams. Cattle, sheep and wool are shipped from this point in great numbers and quantities. Agricultural resources, as well as dairying and fruit growing, are being rapidly developed throughout the valley. Principal industries are mining, stock raising, farming, dairying, lumbering and fruit growing. City owns water works system and electric lighting plant is under private ownership. Has high and graded public schools and two churches: Episcopal and Methodist.

Other important towns, and trading centers of the county are: Dayville, Greenhorn and Hamilton, all farming and stock raising communities.

HARNEY COUNTY.

Southern Central Oregon; plateau section.

County Seat—Burns.

Population — 4,059; 86% American born. Of the foreign born about one-fourth is German and the remainder Scandinavian, Canadians, English and Swiss.

Transportation—Nearest railroad point to Burns, in north central part of Harney County, is Prairie City, Grant County, the present terminus of the Sumpter Valley Railroad, 86 miles; to Vale, Malheur County, on Oregon Short Line, 135 miles; to Bend, Crook County, on Oregon Trunk or Deschutes railroads, 146 miles. Oregon & Eastern Railroad, affiliated with Oregon Short Line, is constructing line via Malheur Valley from Vale into Harney County. Automobile and horse stages to railroad points.

Water—The Silvies river, South Malheur river, Silver creek, Crane creek, Donner-and-Blitzen river, Malheur and Harney lakes, and numerous other small streams and lakes provide an abundance of water for domestic use and irrigation, and there are many power possibilities lying undeveloped. Artesian wells have been found in southeastern part of county.

Roads—County roads in fair condition, maintained by county.

Timber—Natural growth, principally yellow pine, located in the northern part of the county and mostly within the national forest reserve; mountain mahogany (fine heating fuel) and juniper, used for fuel and fence posts.

Minerals—Gold, silver, copper and coal are found in different sections of the county, in the mountainous regions of the north, but this resource is undeveloped on account of lack of railroad facilities. Borax, niter and potash also exist and a fine quality of building stone is also quarried. Many indications of oil.

Fuel—Wood is principal fuel used, average cost \$4.50 a cord.

Land—Surface: Level plains, divided into vast valleys by mountain ranges; largest level plains in Oregon are in Harney county. Soils: In northern part rich in lime and phosphoric acid, naturally well adapted to growing of vegetables and small fruits. In southern part is a gray clay loam and sandy loam, suited to the growing of rains and

grasses; with a system of irrigation would produce fruit and grain in abundance. Average value farm land \$12.35 per acre, cultivated and uncultivated. (U. S. census 1910).

Industries—Farming and stock raising, horses, cattle and sheep. Some lumber manufacturing for local use.

Agricultural Experiment Station, branch of the Oregon Agricultural College, is located in this county, six miles east of Burns. Lakes and streams are natural rendezvous and breeding places for all kinds of water fowl; deer and antelope abound in the mountains and the streams are alive with fine trout and other varieties of game fish.

Average daily wage skilled labor \$3.50; unskilled \$2.00; farm hands \$2.00; stockmen \$35.00 to \$45.00 per month.

For information address: Burns Commercial Club.

Newspapers will send copies: Harney County News, The Times-Herald, Burns.

Sixth Eastern Oregon District Agricultural Fair held at Burns annually.

CITIES, TOWNS AND VILLAGES.

Burns — (County Seat) — Altitude 4,100 feet. Population 904 (U. S. Census, 1910). (See transportation facilities in county matter, preceding.) In Harney Valley stock raising and diversified farming are the chief industries. Only timber in Harney County to be reached by water grade is along Silvies river above Burns. Electric lighting plant is under private ownership. Central trading and distributing point for Harney County and extensive territory in Southern Oregon. Has high and graded public school and three churches: Catholic, Baptist and Presbyterian. U. S. Land Office is located here.

Drewsey—Altitude 3,508 feet. Population 82 (U. S. Census, 1910). Eighty miles from Prairie City, Grant County, nearest railroad point. Farming and stock raising are the principal industries. A gasoline plant, under private ownership, furnishes light for public consumption. Has graded and public school and one church: Congregational. Fruit growing, with irrigation, is coming industry.

Harney—Altitude 4,300 feet. Population 58 (U. S. Census, 1910). Eighty miles from Vale, nearest point on Sumpter Valley Railroad. Industries: Stock raising, farming and lumbering. Has

graded public school and one church, non-sectarian.

Narrows—Altitude 4,100 feet. Population 100, estimated. Between Malheur and Harney lakes. Is important trading center.

Lawen—Altitude 4,100 feet. Population 50, estimated. Near Malheur Lake. Farming center.

Harriman—Altitude 4,100 feet. Population 25, estimated. Near Malheur lake. Farming center.

HOOD RIVER COUNTY.

(Created from part of Wasco County at general election, 1908.)

Eastern Oregon; east slope Cascades; on Columbia river.

County Seat—Hood River.

Population—8,016; 75% American born; 25% foreign.

Transportation—Main line of Oregon-Washington Railroad & Navigation Company railroad traverses northern boundary; Columbia river on the north and S. P. & S. (Hill System) Railroad on Washington side of Columbia river. Mount Hood Railroad, in northeastern part of county, runs from Hood River to Parkdale, a distance of 20 miles. First class rail and water competition for transportation of produce to market.

Water—Columbia river on the north and Hood river, which drains east slope of Cascade mountains watershed, and numerous small tributary streams afford abundant supply of pure mountain water for domestic use and there is approximately 40,000 horsepower, undeveloped, in the streams in the northern part of the county. About 800 horsepower has been developed and is in use at Hood River.

Roads—Large sums are expended annually in the maintenance of highways.

Timber—Natural forest growth is fir, oak, ash, cedar, maple, larch.

Minerals—Some gold and copper, but not prospected or developed.

Lands—Surface: Level, rolling and mountainous. Soils: Hood River Valley is of volcanic origin; red clay loam rich in lime, phosphoric acid and humus. Anything suited to the climate can be grown on this soil. Average value farm lands per acre \$340.03, cultivated and uncultivated (U. S. census 1910).

Industries—Farming, fruit raising, lumbering and manufacturing. While hay and grains are produced quite extensively in the valley and on the foothills, and lumbering is engaged in largely in the foothills of the Cascades, greater attention is paid to the culture of apples,

pears, peaches, cherries and strawberries. This locality has achieved a world-wide reputation for the quality and scientific packing of its apples and strawberries, which are shipped to all parts of this country and Canada and command fancy prices in Europe and the Orient. Fruit land in this district ranges from \$100 per acre, uncultivated, to \$4,000 per acre, highly improved. Fruits from Hood River County have received the highest awards wherever exhibited. Fruit products marketed directly by the Fruit Growers' Union.

Mt. Hood, elevation 11,225 feet, and other scenic and tourist resorts in this county.

Average daily wage skilled labor \$3.00 to \$6.00; unskilled \$2.37.

For information address: Hood River Commercial Club.

Newspapers will send copies: Hood River Glacier, Hood River News and Better Fruit, a monthly publication devoted to horticultural interests, national in scope.

CITIES, TOWNS AND VILLAGES.

Hood River—(County Seat)—Altitude 100 to 260 feet. Population 2,331 (U. S. Census, 1910.) On main line of O.-W. R. & N. Railroad and on Columbia river; junction of Mount Hood Railroad. Industries: Farming, fruit raising, lumbering and manufacturing. Surrounded by extensive fruit growing territory, hay and grain land. Hood River Apple Blossom Festival and Apple Show are held here annually and are notable festal events. Electric lighting plant under private ownership. City owns water works system. Has high and graded public schools and eight churches: Baptist, Catholic, Christian, Congregational, Christian Science, Episcopal, Methodist and United Brethren.

Other important towns and trading centers in the county are: Dee, Odell, Parkdale, southern terminus of the Mt. Hood Railroad, and Wyeth.

KLAMATH COUNTY.

South Central Oregon; east slope Cascade mountains.

County Seat—Klamath Falls.

Population — 8,554; 89% American born. Of the foreign born about one-half are German and the remainder is made up principally of Canadians, Scandinavians and English.

Transportation—The California North Eastern Railroad (Southern Pacific), which connects with the main line at Weed station, in California, penetrates the southwestern portion of the county inland to Klamath Falls, 19 miles. Extension of Oregon Trunk and Deschutes railroads, with present termini at Bend, Crook County, is projected to Klamath Falls, but is only in the prospective stage to date.

Water—Klamath river, Sprague river, Williamson river, Wood river, Lost river, Deschutes river (in northern portion), Klamath lakes and numerous other small streams, provide an abundance of water for domestic and irrigation purposes. Klamath river and Lost river combine a total of about 300,000 latent horsepower capable of development, while in the vicinity of Klamath Falls 240 horsepower only has been developed and utilized on the Link river above Klamath Falls.

Roads—Good county roads are maintained by taxation and subscription.

Timber—Natural forest growth yellow and white pine, yellow and white fir and juniper. About one-half of the area of the county is covered with timber of exceptionally fine merchantable quality.

Minerals—Soda, niter, borax and potash exist in the eastern central portion of the county.

Fuel—Wood is principal fuel, cost about \$5.00 per cord.

Scenery—Grand on lakes and mountains; fish and wild fowl abound in lake and stream, and wild game plentiful in mountains. Crater Lake, nature's masterpiece in the creation of scenic splendors and wonders, is in this county and has been set aside as a national park reserve.

Lands—Surface: Level, rolling and mountainous. Soils: In the lake and river valleys is an exceptionally rich soil of decomposed granite and lava formations. Fertile and lasting. Marsh land soil made up largely of volcanic

tufa and diatomaceous earth, heavily charged with vegetable material. Light in weight and color and responds readily to cultivation. Staple crops: Alfalfa, timothy, hay, grain (wheat, oats, barley and rye), small fruits and vegetables. Average value farm land \$20.18 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Dairying, farming and stock raising. Cattle, horses, hogs and sheep are raised extensively. Wool is an important product. With the development of the available water power, manufacturing will be a pre-eminent feature of the resources. The government irrigation and reclamation project in process of construction is prepared to supply water to 30,541 acres of irrigable land; 27,692 acres are irrigated (June 30, 1911), principally under private ownership. Thirty-two acres of the entire project (embracing a total of 72,000 acres), are withdrawn from entry, and 40,000 acres under private ownership. Government has established 40 acre experimental farm within reclamation reserve north of Klamath Falls.

Size of farm needed: 40 to 80 acres, irrigated and improved; 160 to 320 acres, non-irrigated and dry farming, respectively.

Average daily wage, skilled labor \$4.00; unskilled, farm hands \$2.00 and board; herders \$30.00 to \$40.00 per month; vacqueros \$40.00 to \$60.00.

For information address: Klamath Falls Chamber of Commerce; Crescent Commercial Club; Wood River Chamber of Commerce, Fort Klamath.

Newspapers will send copies: Bonanza Bulletin, Bonanza; Daily and Weekly Express, Daily and Weekly Herald, Weekly Klamath Republican, Weekly Chronicle, Klamath Falls; Weekly Record, Merrill.

CITIES, TOWNS AND VILLAGES.

Bonanza—Population 400 (estimated). Twenty-five miles east of Klamath Falls, nearest railroad connection. Distributing center for large agricultural district; its productivity will be materially enhanced by completion of Horse Fly irrigation district reclamation project. Industries: Farming, stock raising and dairying. Electric lighting plant under private ownership. Has graded public school with high school grades two

churches: Baptist and and Methodist.

Crescent—Population about 100. The most northern town in the county. In the midst of a rich dairy and timber region. Agricultural development work in progress. Near Deschutes river and on proposed line of extension of Oregon Trunk Railroad from Bend to Klamath Falls.

Merrill—Population about 1,000 (estimated). Altitude 4,066 feet. Twenty-one miles from Klamath Falls, nearest railroad connection. Situated on Tule lake. Industries: Stock raising, agriculture (grain and hay). Electric lighting energy under private ownership. Has high and graded public school and four churches: Catholic, Christian Science, Methodist and Presbyterian.

Klamath Falls—(County Seat)—Altitude 4,200 feet. Population 2,758 (U. S. census 1910). Local estimate 4,500. Northern terminus of California Northwestern Railroad (Southern Pacific) and on Lake Ewauna, Upper Klamath lake and Link river. Is principal railroad point and distributive center for all of the country embraced in the Klamath Basin. This includes an immense area of rich agricultural land, of which between

150,000 and 180,000 acres are irrigable, and about 50,000 acres of the marsh type, subject to reclamation by drainage and evaporation. The remainder is uplands of the basaltic or lava type of soil. Several hot springs issue in or near the town limits. Crater lake, one of nature's most wonderful creations, constituted a national park by the U. S. government, is 65 miles north and is easily reached by boat and auto stage. Industries: Stock raising, farming and dairying. Sheep and wool: Has high and graded public schools and several churches, including Baptist, Catholic, Christian Science, Episcopal, Methodist and Presbyterian.

Other important towns and trading centers of the county are: Dairy, Klamath Agency, both centers of extensive irrigation districts; Fort Klamath, on the edge of the Klamath Indian Reserve and surrounded by rich agricultural district; Pelican, on Pelican Bay, Upper Klamath lake; the favorite retreat of the late E. H. Harriman, and Odessa, in western portion of the county, on Upper Klamath lake, chief trading point for large irrigation district.

LAKE COUNTY.

South Central Oregon; plateau region.

County Seat—Lakeview.

Population—4,658; 90% American born. Of the foreign born about one-third is German, the remainder consisting mostly of Irish, English, Canadians and Scandinavians.

Transportation—Lakeview, in the southern extremity of the county, is the northern terminus of the Nevada-California-Oregon Railroad, which junctions with the Union Pacific and Southern Pacific lines at Reno, Nevada, and is the sole direct railway outlet for the county's products at present. By stage and auto from Lakeview to Klamath Falls, Klamath County, 110 miles, to connect with Southern Pacific Railroad, north and south.

Water—Numerous small streams furnish ample supply of pure water for domestic use, and Goose, Warner and Silver lakes afford abundance of water for irrigation purposes. Ground water from seven to 70 feet all over the county. A wealth of undeveloped water power also exists in the county.

Timber—About one-third of the area of the county is covered by forests, the

natural growth of which consists principally of yellow pine, sugar pine, some fir and tamarack. One-half of timbered area is embraced in national forest reserve and is for sale at stumpage of \$2.50 to \$3.00 per acre.

Minerals—Infusorial earth, opals, soda, borax, niter, potash, gold. Lakes Albert and Summersaliferous in character and state has entered into contract with private parties for development of salt and borax industries of these properties. Soda deposits 99% pure at Alkali lake.

Lands—Surface: High, level and rolling plateaus and mountainous. Soils: Disintegrated lava and volcanic ash; alluvial loam, clay loam, sandy loam; alkali spots in a few instances. Rich in potash and lime and naturally adapted to the growing of grapes, hemp and hops. Alfalfa, hay, grains, small fruits and vegetables do well. Yields greatly increased by irrigation and projects completed and in different stages of progress aggregate an area of nearly 500,000 acres. Two large irrigation segregations approved and construction work under way in the Chewaucan and Summer

Lake valleys. Enormous area of land open to entry under Enlarged Homestead Act, allowing 320 acres to each person of adult age. Average value farm lands \$14.67 per acre, cultivated and uncultivated (U. S. census 1910).

Roads—One thousand miles of public highway, in fair condition, maintained by taxation.

Fuel—Wood is the principal fuel used and costs \$5.00 to \$8.00 per cord.

Industries—Stock raising, farming, dairying, small fruits and vegetables.

Size of farm needed: 320 acres in dry farming regions; 160 acres irrigable but non-irrigated lands, and 40 to 80 acres irrigated.

Average daily wage for skilled labor \$3.50 per day; unskilled \$2.00.

Scenery grand; streams and lakes alive with fish and wild fowl; deer and antelope in the mountains.

Large area of dry farming homestead lands in the northern part of the county, in the vicinity of Fort Rock, has been selected by the Hebrew Agricultural Society of Oregon for the purpose of promoting a Hebrew colony. Many families have already taken advantage of the opportunity and taken up homesteads under the provisions of the Enlarged Homestead Act, and a heavy immigration movement is assured for the Spring.

For information address: Lakeview Commercial Club; Paisley Commercial Club; Silver Lake Commercial Club; Viewpoint Homesteaders' Association.

Newspapers will send copies: Lake County Examiner, Lakeview Herald, Lakeview; Weekly Leader, Silver Lake; Paisley Times, Paisley.

CITIES, TOWNS AND VILLAGES.

Lakeview—(County Seat)—Altitude 4,800 feet. Population 1,253 (U. S. census 1910). Local estimate 2,000. Northern terminus of Nevada-California-Oregon Railroad, which junctions with the main lines of the Union Pacific and Southern Pacific railroads at Reno, Nevada, and Western Pacific Railroad at Doyle, California. In heart of Goose Lake Valley, a most fertile and productive agricultural section. The principal industries are cattle-raising, sheep and wool, and lumbering. Gravity water system and electric lighting plant are under private ownership. Shipping and distributive center for immense territory of agricultural and timbered lands. City has well-lighted, modern improved streets, sidewalks, sewerage system and other municipal improvements.

Has substantial public buildings, high school (\$85,000 brick building), graded public school and four churches: Baptist, Catholic, Methodist, Presbyterian.

Paisley—Altitude 4,200 feet. Population 300, estimated. Situated on the Chewaucan river, 25 miles from Lakeview, nearest railroad point, and 90 miles from Bend, Crook County, terminus of the Oregon Trunk and Deschutes railroads. In heart of Chewaucan and Summer Lake Valleys, where sub-irrigation is extensively practiced. The Chewaucan river furnishes abundant water for irrigation and a wealth of undeveloped power for manufacturing purposes. In midst of artesian belt and numerous flows have been realized at depths of from 250 to 725 feet, some of which are capable of irrigating 100 acres. The country surrounding is adapted to dairying, general farming and fruit raising; large body of timber adjacent, principally in forest reserve. Fishing and hunting are good. Has graded public schools and churches.

New Pine Creek—Population about 400. On Nevada-California-Oregon Railroad, 15 miles south of Lakeview; surrounded by highly cultivated orchard and farm lands; graded public schools and churches. Contiguous to the High Grade mining district.

Plush—In central part of Warner Valley, in eastern part of county; surrounded principally by stock country and ranches of stockmen; 100,000-acre Carey Act segregation has been made by state for Warner Lake Irrigation Company in vicinity.

Silver Lake—Small but thriving town in the northwest central interior of the county, near Silver Lake, and is surrounded by large and fertile area of agricultural and timbered lands. Lands subject to dry farming and irrigation. Some swampy lands requiring reclamation by drainage. Has graded public school, church and fraternal organizations.

Viewpoint—In north central portion of the county, in midst of excellent dry farming district; highly productive of hay, grain and vegetables when water is applied. Has graded public school.

Other important towns and trading centers of the county are: Adell, Cliff, Fremont, agriculture and stock raising; Fort Rock, extensive area homestead land in vicinity selected for Hebrew colony; Lake, Silver Lake, Summer Lake, Valley Falls, large irrigation project and valuable agricultural lands in vicinity, and Warner Lake.

MALHEUR COUNTY.

Southeastern Oregon; plateau region; on Snake river.

County Seat—Vale.

Population—8,601; 90% American born; of the foreign born about one-fourth are English and the remainder is made up principally of Irish, Canadians, Germans and Scotch.

Transportation—Main line of Oregon Short Line crosses Snake river into Oregon at Nyssa, in the northeastern corner of the county, and operates on the Oregon side to Ontario, a distance of about 12 miles, where it re-crosses the river and skirts along the northeastern boundary of the state on the Idaho side. The Malheur Valley Railroad, a branch of the Oregon Short Line, extends from Ontario westward to Vale, thence northerly to Brogan, in Malheur County, a distance of 38 miles. The Snake river marks the northeastern boundary of the county from Owyhee northward. The Oregon & Eastern, affiliated with the Oregon Short Line (Harriman System) is constructing a railroad from Ontario for a distance of 90 miles in Malheur Valley.

Water—The Malheur and Owyhee rivers, with their numerous tributaries, and the Snake river, afford an abundant supply of water for all purposes, and there are approximately 10,000 horsepower undeveloped in the Owyhee and Malheur rivers. Springs abound and water is near the surface. Boiling artesian wells are found at Vale.

Timber—The natural forest growth consists of fir and yellow and sugar pine.

Minerals—Gold (both placer and quartz), silver, gypsum, platinum, quicksilver, graphite, flint, sandstone and granite constitute the principal mineral deposits of the county. There are several natural gas wells, and efforts are being made to locate oil in the northern part of the county. Hot mineral springs, with curative qualities, exist in the county.

Lands—Surface: Mostly rolling, some portions mountainous. Soils: Sandy loam, consisting of volcanic ash and silt; has a foundation of sandstone, basalt, slate and granite. Wonderful moisture retaining power and produces fine crops of the hardier grains. Under irrigation will produce vegetables, fruits, melons, hops, hemp and flax. Average value farm lands \$35.22 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—While stock raising has been a leading industry of the county, quite a considerable area has been reclaimed and made to produce excellent crops of fruits, apples, pears, peaches, cherries, etc., and the irrigated area is being rapidly increased with each succeeding season. Horses, cattle, hogs, sheep and wool are the leading income producers in the livestock line. Leading sheep and wool county of the state.

Fuel—Wood and coal are the fuels used, the former costing \$5.00 a cord, the latter \$8.00 per ton.

Roads—There are approximately 500 miles of roads in the county, in fairly good condition, that are maintained by taxation.

Ten acres irrigated and devoted to diversified farming, fruit and poultry is sufficient for ordinary family; 40 acres, irrigated, is all that can be cared for without considerable amount of hired help.

Average daily wage, skilled labor, \$3.50; unskilled, \$2.25.

For information address: Nyssa Commercial Club; Ontario Commercial Club.

Newspapers will send copies: Weekly Express, Jordan Valley; Gate City Journal, Nyssa; Weekly Democrat, The Ontario Argus, Ontario; Weekly Enterprise, Vale.

CITIES, TOWNS AND VILLAGES.

Nyssa—Altitude about 2,200 feet. Population 449 (U. S. census 1910). Livestock and farming, sugar, beet culture and fruit are the principal industries. Surrounding country, under irrigation, admirably adapted to fruit growing, especially apples, pears, peaches, cherries and small fruits, and for general farming purposes. On the main line of Oregon Short Line Railroad and the Snake river. Oil, gas and artesian water are among the undeveloped natural resources of this vicinity. Has high and graded public school and three churches: Episcopal, Methodist Episcopal and Presbyterian.

Nyssa and its adjacent farming community carried away all the prizes for the classes of products exhibited by her at the Malheur County Fair, held at Ontario in 1911, and was also awarded a special premium for a display of apples at the Inter-Mountain Fair,

held at Boise, Idaho, last year. One rancher grows 18 different varieties of apples on his farm.

Ontario—Altitude 2,153 feet. Population 1,248 (U. S. census 1910). On main line of Oregon Short Line and junction point of the Malheur Valley Railroad with the Oregon Short Line, which operates to Vale, county seat, and northward to Brogan. On Snake river. Farming, stock raising (sheep and wool) and fruit growing are the principal industries. Surrounded by rich farming, fruit and stock raising country. Principal distributing point for Malheur Valley and Western Idaho country. Over 2,000,000 pounds of wool shipped from here annually. City water works and electric lighting plant are under private ownership. City has high and graded public schools and six churches: Advent, Baptist, Catholic, Congregational, Methodist, Presbyterian. Steel wagon bridge across Snake river connects Ontario with great Payette Valley, Idaho. Malheur County Fair is held here annually.

Vale—(County Seat)—Altitude 2,250 feet. Population 396 (U. S. census 1910). Local estimate 900. On line of Malheur Valley Railroad which connects with main line of Oregon Short Line at On-

tario and operates northwesterly to Brogan, a distance of 38 miles. Oregon & Eastern Railroad, affiliated with the Oregon Short Line, is constructing a 90-mile extension through the Malheur Valley. City owns water works system and has adequate sewerage system and facilities. Electric lighting plant is under private ownership. On Malheur river, at the confluence of Willow and Bully creeks, and the convergence of three fertile valleys. In heart of territory of inestimable agricultural possibilities when placed under irrigation. Chief center of sheep and wool industry of county. Hot springs at this place possess curative qualities and is a health resort of no little importance. Sheep, cattle and horses are raised, wool growing, farming and fruit culture are the chief industries of surrounding country. City has high and graded public schools. Natural gas and artesian wells exist within the city limits. The predominating religious denominations represented here having church buildings are Catholic, Christian, Congregational, Episcopal and Methodist.

Among the other important towns and trading centers of the county are: Jordan Valley, Malheur, Watson and Westfall.

MORROW COUNTY.

Location—Eastern Oregon; Columbia River Valley; on Columbia river.

County Seat—Heppner.

Population—4,357; 88% American born; of the 12% foreign born, about one-third is Irish and the remaining two-thirds are Scandinavians, Germans and Canadians.

Transportation—Main line of Oregon-Washington Railroad & Navigation Company along the northern boundary. Heppner branch of same system penetrates the county from northwestern corner, where it connects with main line at Heppner Junction, southeasterly to Heppner, the county seat, in the south central part of the county, a distance of 36 miles. Columbia river on northern boundary.

Water—Columbia river on the north, Willow creek and numerous other small streams afford ample water supply for all needs and some valuable water supply undeveloped. Irrigation is resorted to

quite extensively in the northern part of county and good ground water is obtainable at depths of from 20 to 100 feet.

Timber—Natural forest growth is composed principally of fir, pine and tamarack, located mostly in the southern portion of the county and a considerable portion of the forest area is embraced within the national forest reserve.

Minerals—Coal exists in uncertain quantities in the south central portion of the county; a species of mineral from which an excellent quality of curative soap is manufactured; building stone and marble.

Lands—Surface: Level to rolling valleys; hilly and mountainous. Soils: For the most part is silt, low in humus, normal in phosphoric acid, abundant in lime and plentiful in potash. With irrigation will produce grains and fruits in abundance. Average value farm lands \$12.36 per acre, cultivated and uncultivated (U. S. census 1910).

Industries and Products—Stock raising and general farming are the principal industries. In the precipitous section to the south, stock raising is followed upon an extensive scale. It is a "bunch grass" country and immense herds of cattle and sheep are brought to the market weight upon little other food. Approximately 1,750,000 pounds of wool are marketed in the county annually. Horses and mules of a high grade, and mostly of the draft type, are sold in large numbers yearly. A large area of the county is devoted to wheat and alfalfa raising, and fruit is produced successfully in the lower valleys with irrigation. Some dairying in the north part.

Roads—Public highways of the county in fairly good condition, are maintained by general taxation.

Fuel—Wood is the principal fuel used and costs \$3.00 to \$5.00 per cord.

Size of Farms—Ten to 20 acres river bottom, intensified farming and diversified farming; 160 acres and upwards, general farming and uplands. Average wage paid, skilled labor, \$3.25 a day; unskilled \$2.00.

Tri-County Fair for Gilliam, Morrow and Sherman counties is held annually. District Fair for Morrow and Umatilla counties is held annually at Pendleton.

For information address: Morrow County Booster Club, Heppner, Oregon.

Newspapers will send copies: Weekly Gazette and Weekly Times, Heppner.

CITIES, TOWNS AND VILLAGES.

Hardman—Altitude 3,340 feet. Population about 200 (estimated). Twenty miles south and west of Heppner, the nearest railroad point. Situated in extensive livestock and general farming region. Stock, wool and wheat are principal products, but country adapted to diversified farming. Has graded public school and one church: Methodist.

Heppner—(County Seat)—Altitude 1,950 feet. Population 880 (U. S. census

1910). Southern terminus of the Heppner branch of the O.-W. R. & N. Co., which connects with the main line at Heppner Junction, on the Columbia river. Principal market center and distributing point for Morrow County and large contiguous territory. Principal industries are farming, stock raising, wool growing, dairying and fruit culture. Some coal exists in this vicinity and a fine quality of building stone and marble are quarried here on a moderate scale. Shipping center for great quantities of wool, wheat and livestock. City has high and graded public schools and six churches: Baptist, Catholic, Christian, Episcopal, Methodist Episcopal and South Methodist. Water works system and electric light plant are under private ownership.

Ions—Altitude 1,100. Population 239 (U. S. census 1910). On Heppner branch of O.-W. R. & N., 28 miles from the Columbia river. Farming (diversified) and stock raising are the principal industries. Soil in vicinity especially adapted to wheat, fruits, sugar beets and grazing. City owns electric light and water works systems. Has high and graded public schools and two churches: Congregational and one building for all other denominations.

Lexington—Population 185 (U. S. census 1910). On Heppner branch of O.-W. R. & N. Co. and Willow creek. Wheat, farming, stock raising, wool growing and dairying are the principal industries. Has high and graded public schools and two churches: Congregational and Methodist.

Irrigon—Population about 100. On main line of O.-W. R. & N. and near Columbia river. In center of large irrigation district. Has graded public school and church.

Other important towns and trading centers in the county are: Castle Rock, Ella and Galloway.

SHERMAN COUNTY.

Location—North Central Eastern Oregon; Columbia Valley; on Columbia river.

County Seat—Moro.

Population—4,242; 88% American born. Of the 12% foreign born about one-third is German and the remaining two-thirds are Irish, Canadians and Scotch.

Transportation—Main line of Oregon-Washington Railroad & Navigation Company, Columbia river on the northern boundary; Columbia Southern, Shaniko branch of the O.-W. R. & N., traverses the county from north to south in a zigzag line through the central and most fertile portion, connecting with the main line at Biggs station, and Ore-

gon Trunk lines (Hill System) and Deschutes Railway (O.-W. R. & N.) operate along the Deschutes river on the western boundary and almost the entire length of the county.

Water—Columbia river on the north, John Day river on the east, and the Deschutes river on the west, with their respective tributaries, afford an abundance of water for all purposes and there is almost a quarter of a million horsepower capable of development and utilization for power purposes in the Deschutes river, on the western border of the county.

Timber—Practically no forests in Sherman County. Such woodland growth as exists is of the scrub variety and is used for fuel and fence posts.

Minerals—Practically no minerals in commercial quantities exist in the county.

Seventh Eastern Oregon District Agricultural Fair is held at Moro annually (Sherman County branch).

Lands—Surface: Rolling prairie, sloping southward to the Columbia. Soils: Similar to that of Wasco and Gilliam counties. Red clay loam is similar to that of Hood River district, rich in lime, phosphoric acid and potash, suitable for growing fruit, wheat, oats, barley, timothy, clover, vetch and alfalfa. There is also a gray clay loam, similar to that in the vicinity of The Dalles, Wasco County, more naturally adapted to growing grains and grasses than for fruits. Low precipitation renders irrigation imperative in the county if good agricultural results are to be realized. Average value farm land per acre \$25.14, cultivated and uncultivated (U. S. census 1910).

Industries—Agriculture is the chief industry of the county. Wheat is the principal crop grown (Sherman County being credited with producing one-sixth of the total amount of wheat grown in the state). The wheat crop for the year 1907-8 was 1,122,591 sacks (2½ bushels to the sack). Corn, rye, oats, vegetables, hay, cattle, horses, sheep and hogs are raised extensively. In stock raising more attention is being given to full blood Percheron, Clyde and Belgian horses and shorthorn, Jersey and Guernsey cattle. Duroc, Jersey and Poland-China hogs are seen on every side. Dry farming methods are being generally adopted in this county, the natural conditions being ideal for this practice.

There is established at Moro, this county, the Eastern Oregon Dry Farm-

ing sub-station, which is under the joint management of the United States Department of Agriculture and the State Agricultural College, and a site embracing 240 acres has been set aside for experimental work along general lines of dry farming for hays and grains.

Fuel—Wood and coal are used for fuel and cost \$7.50 per cord for wood and about \$12.00 per ton for coal.

Size of farm needed: For wheat and hay growing and general farming, not fewer than 320 acres, or a half section of land is necessary to insure good returns, but a much less amount would be sufficient under irrigation and diversified farming methods.

For information address: Moro, Sherman County Development League.

Newspapers will send copies: Weekly Journal, Grass Valley; Sherman County Observer, Moro; Weekly Enterprise and Occidental Magazine, monthly, Wasco.

Grass Valley—Altitude 2,260 feet. Population 342 (U. S. census 1910). On the line of the Columbia Southern branch of the O.-W. R. & N. Situated in the center of the county and a vast agricultural region. Farming and stock raising are the principal industries. City owns electric lighting, water and power plant. Has high and graded public school and two churches: Baptist and Methodist. Under irrigation the surrounding country would produce abundant crops of fruit and vegetables of excellent quality and in profitable quantities.

Moro—(County Seat)—Altitude 1,790 feet. Population 378 (U. S. census 1910). On line of Columbia Southern branch of the O.-W. R. & N., about 27 miles south of Biggs station, the junction point of the main line. In midst of vast and exceedingly rich agricultural section, for which it is the principal shipping point for its products and distributive point for supplies. Has graded public school and three churches: Baptist, Methodist and Presbyterian. City owns water works system and electric lighting plant. Eastern Oregon branch dry farming sub-station, under direction of the U. S. Department of Agriculture and State Agricultural College, in immediate vicinity. Wheat, poultry, hog raising and dairying are the principal industries.

Wasco—Altitude 1,263 feet. Population 386 (U. S. census 1910). Most northerly of important towns of the county on the line of the Columbia Southern branch of the O.-W. R. & N. system. In center of great expanse of

agricultural territory, for which it is the chief distributing point. Livestock is also important industry of surrounding country. City owns water works (pumping) system. Has graded public

school and three churches: Catholic, Christian and Methodist.

Other important towns and trading centers in the county are: Kent, Rutledge and Wilcox.

UMATILLA COUNTY.

Northeastern Oregon; Columbia River Valley; on Columbia river.

County Seat—Pendleton.

Population—20,309; 86% American born. Of the foreign born about one-fourth is German, the balance being Canadians, Scandinavians, English, Irish and Scotch.

Transportation—Main line of Oregon-Washington Railroad & Navigation Company, traverses central northern part of the county from the northwest to east; branch line of same system operates from Pendleton, in central interior, to Walla Walla, Wash.; another branch of same system to Wallula, Wash., along the Columbia river, connects with main line at Umatilla Junction, and still another branch operates from Pilot Rock Junction, on main line, to Pilot Rock, 14 miles south. Northern Pacific Railroad operates branch line from Wallula, Wash., to Pendleton, with spur leaving branch line at Smeltz and connecting with Walla Walla-Pendleton branch of O.-W. R. & N. at Athena. Walla Walla Valley Railroad (electric) operates six miles of its line from Walla Walla to Milton, on branch of O.-W. R. & N. in Umatilla County. Columbia river forms northern boundary of county for distance of 30 miles and is navigable.

Water—Columbia, Umatilla and Walla Walla rivers, with their numerous tributaries, furnish an abundance of water for domestic and irrigation purposes. There is approximately 35,000 horsepower capable of development in the Umatilla and Walla Walla rivers, in addition to the 4,000 horsepower already being utilized. Good surface water is obtainable at depths of from 15 to 100 feet.

Timber—Natural forest growth consists mainly of pine and tamarack, of which there is a considerable area, and lumbering forms an important item in the list of industries of the county.

Minerals—Granite building stone, copper and coal are the leading mineral products, the two latter not being very extensively developed.

Lands—Surface: Level, rolling to mountainous. Soils: For the most part consists of silt, or "dust soil," abundantly supplied with plant food and among the most fertile of the state. Soil is very deep in most localities, has wonderful capacity to retain moisture and is of such texture as to be easily worked. Highly productive for all grains, hays, vegetables and fruits. Irrigated lands in Columbia River Valley are being devoted extensively to fruit culture. Plenty of sunshine, long growing and early maturing season are decided advantages to growers of small fruits and vegetables. Average value of farm lands \$31.26 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Farming (wheat growing) and livestock are the leading industries. Umatilla County is credited with being the banner wheat growing and shipping county of the state, but, with the adoption of irrigation, diversified farming is being engaged in generally. Estimated wheat crop of the county for 1910 was 5,000,000 bushels. Horticulture and dairying are the main adjuncts to the list of industries in recent years. Sheep raising, wool growing and alfalfa are included among the principal products of the county.

Ten to 20 acres, under irrigation and diversified farming, and 80 acres and upwards for dairying and general farming, yield good profits.

Roads—Highways, generally in fair condition, are maintained by special and general taxation, the latter being a levy of 3½ mills.

Average daily wage skilled labor \$3.75; unskilled \$2.50; farm hands \$2.00 to \$5.00 per day of 14 hours and board.

Fairs, festivals, etc.—Annual Horse Show and Annual Poultry Show held at Milton in May and December, respectively; Umatilla-Morrow County District Fair (Pendleton Round-Up in connection) at Pendleton in September.

For information address: Adams Commercial Association; Helix Commercial

Association; Hermiston Commercial Club; Pendleton Commercial Association; Stanfield Commercial Club.

Newspapers will send copies: Weekly Press, Athena; Weekly Echoes, Echo; Weekly Times, Freewater; Weekly Herald, Hermiston; Weekly Eagle, Milton; Daily East-Oregonian, Weekly Live Wire, Pendleton; Weekly Record, Pilot Rock; Weekly Standard, Stanfield; Weekly Leader, Weston.

CITIES, TOWNS AND VILLAGES.

Adams—Altitude 1,500 feet. Population 205 (U. S. census 1910). On Walla Walla-Pendleton branch of O.-W. R. & N. Railroad, about 15 miles from Pendleton. Situated in midst of best wheat land of county and state, and considerable portion of surrounding country is susceptible of irrigation from shallow wells, much cheaper than ditch irrigation, and soil is highly productive of grains, fruits and vegetables. Exhibits of alfalfa, flowers, garden vegetables and poultry from locality have taken first premiums at many expositions. Livestock (sheep and wool), agriculture and fruit culture are the principal industries of the immediate vicinity. City owns gravity water works system. Has high and graded public schools and two churches: Baptist and Methodist.

Athena—Altitude 1,700 feet. Population 586 (U. S. census 1910). On Walla Walla-Pendleton branch of O.-W. R. & N., midway between Pendleton and Walla Walla. In center of large agricultural region, wheat and hay growing being the principal industries. Is junction point on Spokane-Pendleton branch of O.-W. R. & N. for Northern Pacific branch line from Wallula. City owns gravity water works system, and electric lighting plant is under private ownership. Has high and graded public schools and three churches: Baptist, Christian and Methodist.

Echo—Altitude 639 feet. Population 400 (U. S. census 1910). On main line of O.-W. R. & N. Railroad and on Umatilla river. Is surrounded by rich agricultural section which, under irrigation, produces bumper crops of grains, hay, fruits and vegetables. Diversified farming and stock raising (sheep and wool) are the principal industries. Two large irrigation projects, which will reclaim approximately 70,000 acres of valuable agricultural land east of the city, are under way. Has largest all-concrete and iron grain warehouse west of Mississippi river, operated in con-

nection with flouring mill. Woolscouring plant covers five acres, where 5,000,000 pounds of wool were handled last year. Has fully equipped creamery. Claims largest yield of alfalfa per acre in the state, 710 tons having been cut from 69 acres last year, and over 100,000 tons produced in district this year (1912). City owns water works system. Has high and graded public schools and two churches: Catholic and Methodist.

Freewater—Altitude 1,010 feet. Population 532 (U. S. census 1910). On Walla Walla-Pendleton branch of O.-W. R. & N. and Walla Walla Valley (electric) railroads. Fruit raising and general farming are the principal industries of the surrounding country, which is rich in agricultural possibilities and realities. Electric lighting plant and water works system under private ownership. Has high (city and county) and graded public schools and three churches: Catholic, Congregational and Presbyterian. Small fruit culture is engaged in extensively, also apple, prune and peach growing, in the immediate vicinity, and the products are of fine quality, many carloads being shipped to outside markets annually.

Helix—Altitude 2,000 feet. Population 109 (U. S. census 1910). On branch line of Northern Pacific Railroad, Wallula-Pendleton division, and is key to one of the most fertile wheat producing sections of the county. Helix claims distinction of having largest warehouse capacity and of being the largest primary grain shipping point in the state. City owns water works system and electric lighting plant is privately owned. Has high and graded public school and two churches: Baptist and Christian.

Hermiston—Altitude 450 feet. Population 647 (U. S. census 1910). On main line of O.-W. R. & N. Railroad, and about eight miles from the point of confluence of the Umatilla and Columbia rivers. At head of immense fan-shaped valley, in which U. S. government has undertaken an irrigation project embracing a total of 20,000 acres of arid land, of which the greater portion has been completed and the balance of the system is under construction. The aggregate cost of the project will amount to \$1,250,000. General farming and diversified farming, dairying and fruit culture are the principal industries. Hops and small fruits do well on this land and under the favorable climatic conditions. Fruit and vegetable growers have advantage of early ripening and marketing

season. Has high and graded public school and three churches: Catholic and Methodist. Agricultural experiment station, under direction of United States Department of Agriculture and the Oregon Agricultural College, has been established here.

Milton—Altitude 1,010 feet. Population 1,280 (U. S. census 1910). On Walla Walla-Pendleton division of O.-W. R. & N. Railroad and southern terminus of Walla Walla Valley electric railroad. In heart of extensive and very fertile agricultural section, for which it is chief shipping and distributing point. Diversified farming, fruit growing and stock raising are the principal industries. City owns gravity water works system and electric lighting plant. Has high and graded public schools and five churches: Adventist, Christian, Methodist, Methodist (South), Presbyterian. Annual Horse Show and Poultry Show held here in May and December, respectively, and are social and industrial events of note in this section.

Pendleton—(County Seat)—Altitude 1,070 feet. Population 4,460 (U. S. census 1910). On main line of O.-W. R. & N. and terminal point of Spokane-Pendleton branch of Northern Pacific and Walla-Walla-Pendleton branch of O.-W. R. & N. Is centrally located in county and is chief shipping and distributive point for broad expanse of immensely rich agricultural territory in all directions. City owns water works system and electric lighting plant is under private ownership. Millions of bushels of wheat and other grains, thousands of head of sheep and other livestock, and thousands of tons of fruits and wool, the products of the contiguous country, pass through this shipping point annually. Diversified farming, fruit growing and stock raising are the principal industries of the immediate locality. City has high and graded public schools and one private (Catholic) school and eight churches: Baptist, Catholic, Christian, Congregational, Episcopal, Methodist, Methodist (South) and Presbyterian. Umatilla-Morrow District Fair, in connection with which is held the Pendleton Round-Up, a season of festivity in which Wild West sports and feats of skill and daring in horsemanship, etc., cowboy and cowgirl exhibitions pre-

dominate as instructive and amusement features, held here annually in September. Large area of arid lands being placed under irrigation by government and private capital; admirably adapted to fruit and grain culture.

Pilot Rock—Altitude 1,817 feet. Population 197 (U. S. census 1910). Southern terminus of the Umatilla Central branch of the O.-W. R. & N. Railroad, which connects with main line at Pilot Rock Junction, near Pendleton, and on Birch creek, main tributary of Umatilla river. Farming and stock raising are the principal industries of the surrounding country, comprising the entire southern portion of the county. Has high and graded public school and one church.

Stanfield—Altitude 590 feet. Population 318 (U. S. census 1910). On main line of O.-W. R. & N. Railroad, near Umatilla river. Conditions surrounding offer splendid opportunity for diversified farming and dairying. In midst of section known as Umatilla Meadows, the soil being splendidly adapted to truck gardening, which is engaged in extensively and profitably. Is central shipping point for large irrigation project with approximately 10,000 acres of arid land under irrigation, besides vast area of semi-arid land which yields large crops of wheat and other grains. Fruit culture engaged in profitably in this locality. Has high and graded public school and churches.

Umatilla—Altitude 340 feet. Population 198 (U. S. census 1910). On main line of O.-W. R. & N. and is junction point for Wallula-Spokane branch of same system. Also situated on Columbia river, near its confluence with the Umatilla river. Farming and fruit raising are the principal industries. Has high and graded public school and churches. Steam pumping water works system under private ownership.

Weston—Altitude 1,652 feet. Population 499 (U. S. census 1910). On Walla Walla-Pendleton branch of O.-W. R. & N. Railroad. Farming and dairying are the principal industries. Gravity water works system is owned by the municipality. Has high (district and city) and graded public schools and six churches: Baptist, Dunkard, Episcopal, Methodist (Free), Methodist (South) and United Brethren.

UNION COUNTY.

Northeastern Oregon; Blue Mountain section.

County Seat—La Grande.

Population—16,191; 91% American born. Of the foreign born about one-fourth is German and the remainder are English, Scandinavian, Canadians and Scotch.

Transportation—Main line of Oregon-Washington Railroad & Navigation Company traverses central portion of the county from the west to the southwest, with a branch line reaching out from La Grande northward to northeastern extreme of the county. From Union the Central, of Oregon, Railroad goes to Cove, a distance of 14 miles. These lines afford good transportation facilities for products and passenger traffic to all markets and points outside.

Water—Grande Ronde, Minam and Powder rivers, with their numerous tributaries, furnish an abundant supply of water for domestic, logging, mining, irrigation and other purposes, and the Grande Ronde river possesses a wealth of undeveloped water power, not more than 200 horsepower having been developed. Surface water is reached at depths of from 15 to 20 feet, but a much better quality is found at slightly greater depths. Artesian water has been developed in some parts of the county and at La Grande there is a gusher 850 feet deep which supplies the railroad.

Timber—Yellow pine predominates in the natural forest growth of the county, though there is considerable spruce and hemlock in some localities. The lumbering industry is one of the chief sources of profit and prosperity of the county. Lumber output of the mills approximates about 70,000,000 feet per year.

Land—Surface: In the Grande Ronde Valley generally level; rolling; hilly to mountainous in the western, southwestern and southeastern. Soils: In northern part, where the surface is hilly, the soil is adapted to the growing of fruit, grain, hemp, sugar beets and sorghum. Average value farm lands \$33.49 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Lumbering, manufacturing, mining, general and diversified farming, fruit growing, dairying and livestock are the principal industries. Wheat is the most important of the grain crops but other grains are grown quite exten-

tensively. Land is especially adapted to sugar beet culture and the finest quality of this product is produced in the Upper Grande Ronde Valley. The potato is also a source of profitable income to the farmer. Union County produces an enormous yield of wool annually.

Minerals—The principal mineral resources of the county are gold, copper, mica, soapstone and building stone.

Roads—About 1,500 miles of public highways in the county are maintained by taxation and are in good condition.

Fuel—Wood is the principal fuel used and costs from \$2.50 to \$4.00 per cord.

United States Land Office is located at La Grande.

First Eastern Oregon District Agricultural Fair is held at La Grande annually.

The Eastern Oregon Agricultural Experiment Station and farm is at Union. Hot Lake, a considerable body of water of that name, fed by innumerable springs and possessing curative qualities, beside which a large sanatorium has been established by local capital, is near La Grande, on the line of the O.-W. R. & N. Railroad.

Ten to 20 acres, diversified and intensified farming, and 160 acres, and upwards, for general farming and dairying, are profitable holdings.

Average daily wage for skilled labor \$3.50; unskilled \$2.00; farm hands \$2.00 during harvest.

For information address: Cove Commercial Club; La Grande Commercial Club; Union Commercial Club.

Newspapers will send copies: Weekly Recorder, Elgin; Daily Chronicle, Daily Eastern Oregon Observer, Weekly Star, La Grande; Weekly News, North Powder; Weekly Eastern Oregon Republican and Weekly Oregon Scout, Union.

CITIES, TOWNS AND VILLAGES.

Cove—Altitude 2,700 feet. Population 433 (U. S. census 1910). Local estimate 500. Northern terminus of the Central of Oregon Railroad, which connects with the main line of the O.-W. R. & N. at Union. Surrounded by large area of agricultural country, the principal industries are fruit raising, general farming and stock raising. Electric lighting plant is under private ownership. Generating station of Grande Ronde Electric Company, which furnishes light and power to various points of the valley, is

located here. Has high and graded public schools and three churches: Baptist, Episcopal and Methodist.

Elgin—Altitude 2,664 feet. Population 1,120 (U. S. census 1910). Local estimate 1,200. On Elgin-Wallowa County branch of the O.-W. R. & N. Railroad and the Grande Ronde river. Chief distributive and shipping point for northern part of the county and part of Wallowa County. Good water power facilities and ample supply of water for domestic, irrigation and other purposes. Lumbering, general farming and dairying are the principal industries of the surrounding country. Annual output of sawmills in contiguous territory about 25,000,000 feet. Gravity water works system is owned by the city and electric lighting plant is under private ownership. Has high and graded public schools and seven churches: Baptist, Catholic, Christian, Episcopal, Methodist (2) and Presbyterian.

Imbler—Altitude 2,700 feet. Population 300 (estimated). On Elgin-Wallowa County branch of the O.-W. R. & N. Railroad and in midst of large wheat producing country. Fruit growing and lumbering engaged in extensively. City has graded public school and two churches: Methodist and Mormon. Surrounding country well adapted to sugar beet culture.

Island City—Population 166 (U. S. census 1910). Local estimate 200. On Elgin-Wallowa County branch of the O.-W. R. & N. Railroad, two miles north of La Grande. City owns water works system and electric lighting plant is under private ownership. Has high and graded public school and one church, non-sectarian. Agriculture is the principal industry of the surrounding country and dairying is engaged in to some extent.

La Grande—(County Seat)—Altitude 2,786 feet. Population 4,843 (U. S. census 1910). Local estimate 6,500. On main line of O.-W. R. & N. Railroad and junction point of Elgin-Wallowa County branch of same system. Surrounded by vast area of forest and agricultural territory and farming, fruit raising, livestock, lumbering and manufacturing are the principal industries. Claims second largest payroll in the state. City has well improved and lighted streets, sewerage, ample fire protection, etc.; owns gravity water works system, but electric lighting plant is under private ownership. Sheep raising and wool production are among the most valuable assets of the contiguous territory. Principal

shipping and distributive point for Union and Wallowa counties. United States Land Office located here. Grande Ronde Chatauqua Assembly is held here annually. Union County Fair and Stock Show, generally known as "Homecoming Day," is celebrated each year in June. First Eastern Oregon District Fair held here annually. Has high and graded public schools and one private (Catholic) academy and eleven churches: Adventist, Baptist, Catholic, Christian, Christian Science, Episcopal, German Lutheran, Methodist Episcopal, Methodist (South), Mormon and Presbyterian.

North Powder—Altitude 3,427 feet. Population 455 (U. S. census 1910). Local estimate 500. In extreme southern limits of county, on main line of O.-W. R. & N. and on Powder river. Important shipping and distributive point for southern Union and northern Baker counties, and the principal industries of the surrounding territory are lumbering and general farming. City owns water works system, and electric lighting plant is under private ownership. Stock raising and mining are also important industries of the contiguous country. Has high and graded public schools and two churches: Baptist and Methodist.

Summerville—Altitude 2,700 feet. Population 237 (U. S. census 1910). Local estimate 250. Sixteen miles north of La Grande, junction point with main line of O.-W. R. & N. In midst of extensive lumbering country, and dairying, general farming and fruit raising are engaged in extensively. Factory for the extraction of fiber from pine needles is located here. Has high and graded public schools and two churches: Methodist and Presbyterian.

Union—Altitude 2,784 feet. Population 1,483 (U. S. census 1910). Local estimate 2,000. On Central of Oregon Railroad, which operates to Cove, 12 miles north and east of Union and which connects with O. W. R. & N. R. R. two miles east. Dairying, farming, fruit culture and livestock are the principal industries of the territory contiguous to the city. Occupies important commercial position in Grande Ronde Valley. Two streams which flow through the city afford ample supply of water for domestic and other purposes and possess a wealth of undeveloped water power. Eastern Oregon Agricultural Experiment Station and farm just outside city limits. City owns gravity water works system. Electric lighting plant is under private

ownership. Has well improved and lighted streets. Has high and graded public schools and seven churches: Adventist, Catholic, Christian, Episcopal, Meth-

dist, Mormon and Presbyterian. Among the other important towns and trading points in the county are: Glover, Starkey, Telocaset and Woodley.

WALLOWA COUNTY.

Northeast corner of state; Blue Mountain region; on Snake river.

County Seat—Enterprise.

Population—8,364; 94% American born. Of the foreign born about one-fifth is Scandinavian and the remainder Germans, Canadians, English and Irish.

Transportation—Elgin-Wallowa County branch of the O.-W. R. & N. Railroad, which connects with the main line at La Grande, in Union County, extends 46 miles from the northwest corner southeasterly to Joseph. This railroad furnishes the only means of transportation for the more populated and developed agricultural sections of the county, and lack of adequate transportation facilities is largely accountable for the tardy development of the county's resources. Snake river, navigable only to very light draft vessels, marks the eastern boundary of the county and the state line.

Water—Snake, Grande Ronde, Imnaha, Nainum and Wallowa rivers and Joseph creek and other smaller streams furnish an abundance of water for domestic, irrigation and other uses, and possess approximately 200,000 hydro horsepower, only 1,200 of which have been utilized. This available water power exists principally in the Wallowa and Grande Ronde rivers.

Timber—County contains large forested area, estimated approximately at 500,000,000 feet of merchantable timber, about one-half of which is owned by private parties, consisting of fir and pine.

Minerals—Some coal prospects exist, also traces of gold, silver, platinum and limestone, none of which is in a developed state. Lack of transportation has retarded development of mineral resources. Zinc, lead, copper all exist in paying quantities, and there are extensive deposits of marble, clay and building stone.

Lands—Surface: Level and undulating valleys, rolling hills and mountains. Soils: Largely alluvial ash, gray in appearance but darkening on becoming damp; very fertile and produce abund-

antly. Fine in texture and loose, but has wonderful ability to retain moisture. While annual precipitation is low, grains and grasses mature without irrigation. Average value farm lands \$20.20 per acre, cultivated and uncultivated (U. S. census 1910).

Industries—Farming, dairying, lumbering and livestock. Wheat, oats, hay, corn, rye and vegetables are grown; also apples, peaches, pears, plums, prunes, grapes and berries are cultivated to some extent and do well. Potatoes and onions are produced abundantly. Horses, cattle, sheep and swine are raised extensively and represent one of the most important industries. A great quantity of wool is raised, and climate and other conditions are favorable to dairying.

Ten to 20 acres, if devoted to intensive farming, and 40 acres and upwards for dairying and general farming, yield good returns.

Fuel—Wood is principal fuel used and costs \$3.00 to \$4.00 per cord.

Average daily wage for skilled labor \$3.50; unskilled \$2.00.

Climate healthy and invigorating; scenery is grand and fish and wild game abound in the streams and mountains, respectively.

County Fair, held at Enterprise each Fall, is thoroughly representative of resources of county.

For information address Enterprise Commercial Club.

Newspapers will send copies: Weekly Wallowa, Chieftain, Weekly News-Record, Enterprise; Weekly Journal, Flora; Weekly Herald, Joseph; Weekly Reporter, Lostine; Weekly Sun, Wallowa.

CITIES, TOWNS AND VILLAGES.

Enterprise—(County Seat)—Altitude 3,749 feet. Population 1,242 (U. S. census 1910). Local estimate 1,500. On line of Elgin-Wallowa County branch of O.-W. R. & N. Railroad, which connects with main line at La Grande, Union County. In central southwestern and most fertile and developed portion of

the county and on the Wallowa river, which furnishes water for domestic purposes as well as power for electric lighting and milling purposes. Electric lighting plant owned by private parties. City owns water works system. Lumbering, farming, livestock and dairying are the principal industries. Mining, gold and silver, is engaged in extensively, and quarries of building stone, marble and granite are worked. Is shipping and distributive point for southern and central Wallowa County. Has high and graded public schools and five churches: Catholic, Christian, Methodist, Episcopal, Mormon, Presbyterian.

Joseph—Altitude 4,120 feet. Population 725 (U. S. census 1910). Local estimate 1,000. Southern terminus of Elgin-Wallowa County branch of O.-W. R. & N. Railroad, and is six miles south of Enterprise, the county seat. In midst of large and productive agricultural, grazing, fruit and timbered section, which afford a broad scale of industries; 75% of adjacent territory is under cultivation and mostly under irrigation ditches. Industries: Lumbering, dairying, fruit raising and general farming. Livestock is an important industry and heavy shipments of horses, cattle, sheep and hogs are made annually to outside markets, while the wool-exports exceed a million and a half pounds annually. City owns water works system; electric lighting plant under private ownership. Wallowa Lake, a magnificent body of mountain water, with all of the natural advantages and attractions of an ideal mountain summer resort; is situated one mile south. City has high and graded schools and three churches: Catholic, Methodist, Presbyterian.

Lostine—Altitude 3,500 feet. Population 230 (U. S. census 1910). Local estimate 300. On Elgin-Wallowa County

branch of O.-W. R. & N. and near Wallowa river, which furnishes abundant supply of water for domestic and irrigation purposes and available power for factory and milling purposes. In midst of extensive area of rich agricultural territory; and the principal industries are dairying, mining, lumbering, stock raising and lime manufacturing. Some valuable lime and marble deposits, as well as gold and copper, exist near the city. While vegetables and fruits do well the surrounding country is essentially adapted to dairying. Good tracts obtainable in 5, 10, and 40 acres and upwards. City has graded public schools and one church building used jointly by Christian, Methodist and Presbyterian denominations. Electric lighting plant under private ownership.

Wallowa—Altitude 2,912 feet. Population 793 (U. S. census 1910). Local estimate 1,250. On Elgin-Wallowa County branch of O.-W. R. & N. Railroad and near Wallowa river, which furnishes plentiful supply of water for all purposes, and power for generation of energy for manufacturing purposes. City owns water works system, and electric lighting plant is under private ownership. Town surrounded by extensive agricultural territory, suited to all kinds of farming, and the leading industries are lumbering, mining, farming, dairying and stock-raising. Fruits and vegetables do well and conditions especially adapted to dairying and livestock raising. Wealth of water power existing near the town is undeveloped. Has good graded public school and three churches: Christian, Methodist and Presbyterian. Is lumbering center of considerable importance. Has payroll of \$150,000 per year.

Other important towns and trading centers of the county are: Appleton, Bartlett, Imnaha and Utopia.

WASCO COUNTY.

Eastern Oregon; east slope Cascade mountains; partly in Deschutes Valley; on Columbia river.

County Seat—The Dalles.

Population—16,336; 89% American born; 11% foreign born.

Transportation—Oregon-Washington Railroad & Navigation Company's main line traverses northern boundary of the county. Spokane, Portland & Seattle Railroad (Hill system) operates along

north bank of Columbia river and crosses into Wasco County from Fallbridge, Wash. Under the corporate title of Oregon Trunk Railway, it traverses the full length of the eastern and south central part of the county along the Deschutes river into Central Oregon. Deschutes branch of the O.-W. R. & N., parallels the Oregon Trunk on the east side of the Deschutes River. Columbia Southern branch of the O.-W. R. & N. terminates

at Shaniko. The Columbia river, navigable to river steamships from The Dalles to the ocean, forms the north boundary of the county. The Dalles-Celilo locks, under construction by the United States government, now nearing completion, will make possible continuous navigation on the Columbia river for its entire course along the northern boundary of the state. Great Southern Railway operates from The Dalles to Dufur, north central portion.

Water—Columbia, Deschutes, John Day, Warm Spring and White rivers, with their multiplicity of tributaries, afford an abundant supply of pure mountain water for all purposes, while the Columbia on the northern border, and the Deschutes rivers contain more than a half million horsepower awaiting development. About 1,350 horsepower has been utilized on the White river.

Timber—Natural forest growth consists principally of yellow pine and fir. While the timbered area of the county is extensive, the development of this industry has been retarded on account of lack of transportation facilities.

Minerals—Traces of coal and platinum are found but are not developed to any commercial extent. Some valuable building stone deposits exist and are being quarried in this county.

Lands—Surface: Rolling, hilly and mountainous. Soils: In the vicinity of The Dalles is a gray clay and sandy loam. The land in Dufur Valley especially adapted to growing of grains and grasses. Apples will be in bud in few years. The rolling land is adapted to fruit growing and some of the best qualities of apples, pears, strawberries, cherries, peaches, grapes, etc., produced in the state are grown here. Cantaloups and all varieties of vegetables do well here. Average value farm lands \$22.19 per acre, cultivated and uncultivated (U. S. census 1910). Small fruit and vegetable crops are early—reported to be earliest in Pacific northwest.

Industries—Farming, grazing, stock raising, lumbering, fruit, viticulture and dairying. Wheat and sheep (and wool) are raised extensively in the county. Approximately 1,500,000 pounds of wool are shipped from The Dalles annually.

Wood is the principal fuel used and costs from \$3.00 to \$6.00 a cord.

Roads—There are about 1,000 miles of county roads, maintained by general and special taxation, all in fair condition, and open all the year. Large sums are expended annually upon the public high-

ways, which are among the best in the state.

Fairs, festivals, etc.—The Dalles Chautauqua Assembly is held at The Dalles in August, and The Dalles (city and county) Fair, in September.

For information address: Dufur Development League; Maupin Commercial Club; Mosier Valley Commercial Club; The Dalles Business Men's Association; Wamie Development League.

Newspapers will send copies: Weekly Herald, Antelope; Weekly Dispatch, Dufur; Weekly Star, Shaniko; Daily Chronicle, The Dalles Optimist, The Dalles; Weekly Bee, Tygh Valley; Weekly Bulletin, Mosier.

CITIES, TOWNS AND VILLAGES.

Antelope—Altitude 2,617 feet. Population 175 (U. S. census 1910). In southern part of county, 10 miles southeast of Shaniko, southern terminus of Columbia Southern Railroad. Principal industries are sheep and cattle raising and wool growing, but adjacent country is adapted to dairying, poultry and hog raising. City owns gravity water works system; electric lighting plant is under private ownership. Has graded public school and one church: Methodist. Volunteer fire department.

Dufur—Altitude about 1,000 feet. Population 523 (U. S. census 1910). Local estimate 750 (1912). Present southern terminus of Great Southern Railroad, 30 miles by rail from The Dalles, through which runs the main line of the O.-W. R. & N. Railroad; road has been extended southwestward 15 miles to the town of Friend, in midst of rich fruit and agricultural district, but extension not in operation as yet. Dufur is situated in what is known as Fifteen-Mile or Dufur Valley, 15 miles by wagon road from The Dalles. Most important industries are lumbering (six small sawmills tributary to Dufur) and stock raising, but general farming, fruit growing, dairying and poultry raising are engaged in moderately in the valley lands. Fruit cultivation, however, is being developed fast, 7,000 acres having been planted with apple, pear and cherry trees during the past three years. The fruit will be marketed through the medium of a fruit growers' union. Wheat is the principal crop of the valley, but barley and oats are also grown. City owns gravity water works system, and electric lighting plant is owned by private corporation. There are some good oil prospects in the vicinity. City has

high and graded public schools and three churches: Christian, Methodist and United Brethren.

Mosier—Altitude from 100 to 2,000 feet. Population 684 (local estimate). On main line of O.-W. R. & N. Railroad and on the Columbia river, is seven miles from Hood River, and is partly in Hood River district. Fruit growing, especially apples, peaches, pears, prunes and cherries, is the principal industry of the section of country surrounding, there being about 25,000 acres of tillable land in the district. Has first class rail and water transportation facilities for products to Portland market. Fruit Growers' Association markets all fruit. Has one high and four graded public schools and two churches: Christian, and one federated church for all evangelical denominations. Fruit and vegetable growers have advantage of early ripening and marketing conditions, due to elevation and climate.

Shaniko—Altitude 3,220 feet. Population 495 (U. S. census 1910). Southern terminus of the Columbia Southern branch of the O.-W. R. & N. Railroad, which connects with the main line at Biggs station, on the Columbia river, in Sherman County. Lumbering, stock raising and farming are the principal industries of the surrounding country, and the city is the principal shipping point for the varied products of a vast interior country. Gravity water works system is owned by private parties. Has graded public school and several religious denominations are represented in the citizenship.

The Dalles—(County Seat)—Altitude 112 feet. Population 4,880 (U. S. census 1910). Local estimate 6,000. On main line of O.-W. R. & N. Railroad and on Columbia river with first class rail and water transportation facilities to markets for varied products. Is junction point for Great Southern railroad with O.-W. R. & N., which operates to Dufur, and about 20 miles from the junction points of the Oregon Trunk (Hill system) and Deschutes Railway (O.-W. R. & N.) which penetrate the central eastern portion of the state. Connected by ferry over the Columbia river with the Spokane, Portland & Seattle Railroad into Portland and the East. Is the commercial center and gateway to Wasco county and Central Oregon. Can harvest, pack and ship produce to Portland on same day. Country immediately contiguous to the city is highly productive of finest qualities of apples, peaches, pears, cherries, grapes, prunes and all

varieties of small fruits and fruit exhibits have won highest awards wherever shown. Apples, cherries and grapes are the specialties in fruit culture. Great quantities of wheat, fruit and wool, sheep and livestock are shipped from this point annually. Has live commercial organization and all fruits are marketed through medium of growers' association. City has well paved, well lighted streets, sewer system and all modern municipal improvements. City owns gravity water works system, and electric lighting plant is under private ownership. Has high and graded public schools and one sectarian (Catholic) school and 10 churches: Baptist, Catholic, Christian, Congregational, Episcopal, Lutheran, Methodist, Mission, Salvation Army and United Brethren. Graduated elevation, from 100 feet at the Columbia river, to nearly 3,000 feet at the interior, coupled with a varied climate, are factors of importance to the gardener and fruit grower of The Dalles and Wasco County. Average date of last killing frost in Spring, April 10, and of first killing frost in Autumn, November 5, gives an early Spring ripening season and long growing season and insures benefits of early Spring markets for products of the lowlands, and long continued seasons for upland products. Average annual rainfall 16.96 inches. While dry farming is practiced upon a large scale, and successfully, and irrigation is not absolutely necessary, best results in quality and yield are obtained through irrigation and it is quite generally adopted in some localities as an assurance of best results. The Dalles also boasts one of the largest salmon canneries in the West, the annual output approximating 50,000 cases of Columbia river salmon, and salmon fishing and packing are included in the list of important industries. Two fruit canning factories are also located here. One of the largest and most efficient flouring mills in the state located here. The Dalles Chautauqua Assembly is held here annually in August, and The Dalles Fair, an industrial and social season of festivity of more than local note and attraction, is held in September of each year. Scenery is grand, hunting and fishing conditions good, and The Dalles is an objective point of tourist excursions up the Columbia river from Portland at all times of the year.

Wamie—Altitude 1,800 feet. Population 150. About 10 miles from Sherar on the line of the Oregon Trunk (Hill System) its nearest railroad shipping

and receiving point, and in midst of tillable area of approximately 60,000 acres of excellent farming, fruit growing, dairying, livestock and poultry raising lands. Surrounding country suitable for production of alfalfa, clover, fruits, nuts, livestock, poultry and dairy products and vegetables. Climate invigorating and healthful, very beneficial to sufferers of asthma, and scenery is grand. Graded public school, embracing high school branches. Immense area of merchantable

timber, consisting of yellow and white pine, red fir, cedar and oak, in immediate vicinity of city, practically all of which is embraced within limits of national forest reserve. Wamic country particularly endowed with natural advantages and resources necessary to a diversified farming and fruit growing locality.

Other important towns and trading centers of the county are: Rowena, Sherar, Smook, Tygh Valley, Victor and Wapinitia.

WHEELER COUNTY.

Location—Eastern Oregon; John Day river; part of John Day Valley.

County Seat—Fossil.

Population—2,484; 93% American born. Of the 7% foreign born, one-fourth is Scotch and the remainder are principally Germans, Irish and English.

Transportation—Fossil, situated in northern part of county, is 20 miles south from Condon, in Gilliam County, and terminus of the branch of the Oregon-Washington Railroad & Navigation Company transcontinental line, which connects with the main line at Arlington on the Columbia river. Shaniko, Wasco County, and southern terminus of the Columbia Southern branch of the O.-W. R. & N., which connects with the main line at Biggs station, on the Columbia river, is about 40 miles almost due west. These are the two nearest railroad connections for the county.

Water—The John Day river, with its weblike system of tributary streams from every portion of the county, gives an abundant supply of water for domestic and other purposes and there is approximately 50,000 hydro-horsepower in the John Day river proper, alone, awaiting development and utilization. Wheeler County, with springs bubbling up on every hand and in almost every altitude, is one of the best watered sections of the state. Excellent quality of water is plentiful near the surface.

Timber—There is a large area of timber in the county, mostly in the eastern portion, and the natural growth consists principally of pine, fir, tamarack and juniper. Lack of adequate transportation facilities has retarded the development of the lumbering industry of the county.

Minerals—There is a considerable deposit of coal in the county, likewise some

gold and lime rock, but the mineral resources of the county have scarcely been prospected.

Roads—Approximately 360 miles of county roads, in fair condition, are maintained by general taxation.

Lands—Surface: Hilly and mountainous; general slope toward the north. Soils: South and west is largely composed of silt of a fine texture, light gray in color, darkening when moistened and easily tilled. Soil of the north is of fine quality, very rich and excellent (physical) texture. Humus content exceptionally high. Sugar beets would thrive here, and other vegetables, especially onions and potatoes, and small fruits, could be grown. John Day Valley, part of which extends over into northwestern portion of the county, is noted for its fertility and abundant productivity of a great variety of products, including fruit. Average value farm land \$9.12 per acre, cultivated and uncultivated. (U. S. census 1910).

Industries and Products—Cattle, horses, sheep and hogs are raised extensively; poultry, and general farming are also very important industries. All kinds of grains, wheat, oats, rye, corn and barley yield well, but wheat is the leader in this class of product. Wheeler is one of the leading counties of the state in growing alfalfa. Sheep and wool production rank high with the counties of the state which lead in these important and profitable industries. Conditions are ideal for livestock raising, dairying and general farming on a large scale.

Fuel—Wood is principal fuel used and costs \$3.00 to \$4.00 per cord.

Size of farm needed: Usual size of farm in this county is not fewer than 320 acres, and there are approximately 300,000

acres of public land open to homestead entry.

Climate is dry and healthful; average precipitation about 14½ inches per annum, and the scenery is grand.

Newspapers will send copies: Weekly Journal, Fossil; Weekly News and Weekly Sentinel, Mitchell; Weekly Spray Courier, Spray.

CITIES, TOWNS AND VILLAGES.

Fossil—(County Seat)—Altitude 2,500 feet. Population 421 (U. S. census 1910). In northern end of county, 20 miles south of Condon, Gilliam County, and southern terminus of the branch of the O.-W. R. & N. Railroad, which connects with the main line at Arlington, on the Columbia river. This is the nearest railroad connection. Is in heart of vast agricultural section where enormous crops of wheat and alfalfa hay are produced annually. Sheep and wool are also produced in great numbers and quantity every year and yield an immense revenue to the husbandmen. Is central shipping and distributive point for all of Wheeler, western part of Grant and eastern Crook counties, embracing more than two million acres of land. Gravity water works system is owned by the city and electric lighting plant is under private ownership. Has high and graded public school and two churches: Methodist and Baptist.

Mitchell—Altitude 2,750 feet. Population 210 (U. S. census 1910). In southern part of county, 40 miles south of Fossil, and on Bridges creek, one of the main tributaries of the John Day river. Shaniko, Wasco County, and southern terminus of the Columbia Southern branch of the O.-W. R. & N. Railroad, which connects with the main line at Biggs station, is distant 60 miles, and the most feasible and convenient railroad connection, road conditions taken

into consideration. Situated in center of broad expanse of rich and highly productive agricultural country, the principal industries are general farming (particularly hay and grain for home consumption), and livestock, cattle, horses, sheep (wool) and hogs. Poultry culture and dairying would be profitable industries here with the proper transportation facilities, as would wheat growing upon an extensive scale. Fruits of the hardier varieties do well. Lumbering and mining are important resources but are undeveloped. City owns gravity water works system; electric lighting plant privately owned. Has high and graded public schools and two churches: Baptist and Methodist.

Clarno—Altitude 1,230 feet. Population 100, estimated. Northwestern corner of the county, about 22 miles from Shaniko, Wasco County, southern terminus of the Columbia Southern branch of the O.-W.-R. & N. Railroad, which connects with the main line at Biggs station, on the Columbia river, and nearest railroad connection. At head of the John Day Valley, which is noted for its fertility and great productivity of a variety of products, and on the main traveled road from Shaniko to Fossil, county seat of Wheeler County. Farming, fruit raising and livestock (including sheep and wool) are the principal products. Situated on the John Day river, near the mouth of Pine creek. Water supply is first class and power developing possibilities are valuable. Government has reserved site for immense reservoir below the town, the water to be used in an extensive irrigation project of the future in Gilliam, Sherman and Morrow counties.

Other important towns and trading centers in the county are: Lost Valley, Richmond, Spray, Waterman, Winlock and Twickenham.

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OREGON'S INCREASE IN POPULATION.

1860	52,465
1870	90,923
1880	174,768
1890	317,704
1900	413,536
1910	672,765

OREGON'S WATER DRAINAGE.

Into Columbia river.....	55,824 square miles.
Into California, via Klamath and Pitt rivers.....	9,999 " "
Direct to Pacific Ocean by rivers other than the Columbia, Klamath and Pitt.....	15,931 " "
Into inland lakes possessing no surface outlet.....	13,853 " "
Total Land Area.....	95,607 " "

THE COLUMBIA RIVER.

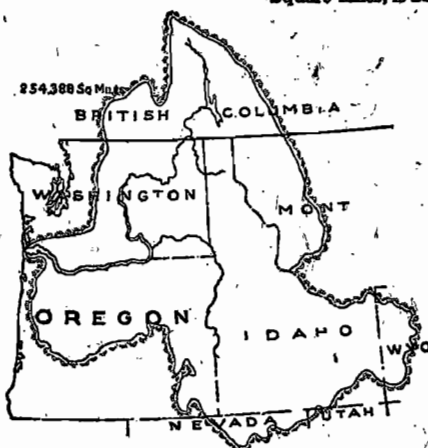
With its tributaries, the Columbia, Oregon's great river, is navigable for 1,664 miles, the lower Columbia being navigable for deep water vessels from Portland to the ocean (120 miles). Several cascades, or rapids, prevent continuous navigation of the upper Columbia and its great tributary, the Snake river, but 1,294 miles of the upper rivers are navigable in stretches of from 200 to 400 miles, and regular river steamboat service is maintained thereon. In commercial importance, in North America, as well as in length of navigable waters, the Columbia river is second only to the Mississippi river.

The Columbia River Valley has an

area of 254,388 square miles; 215,993 square miles are in the United States and 38,395 in British Columbia. This is a total area larger, with the exception of Georgia, than the thirteen original states of the Union. This area is distributed as follows:

Oregon.....	55,824 square miles.
Washington.....	49,505 " "
Idaho.....	77,640 " "
Montana.....	20,800 " "
Nevada.....	6,280 " "
Wyoming.....	5,184 " "
Utah.....	700 " "
British Columbia..	38,395 " "
Total.....	254,388 " "

Columbia Valley Larger than Thirteen Original States Excepting Georgia. Columbia Valley, 254,388 Square Miles, is Shaded on Map below.



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Respectfully submitted,

C. C. Chapman

State Immigration Agent.

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By writing a letter of inquiry you can command every assistance in the way of information from the state officers and the commercial organizations of the state. Address inquiries to C. C. Chapman, State Immigration Agent, Commercial Club Building, Portland, Oregon.

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OREGON STATE IMMIGRATION COMMISSION

C. C. CHAPMAN, Oregon State Immigration Agent