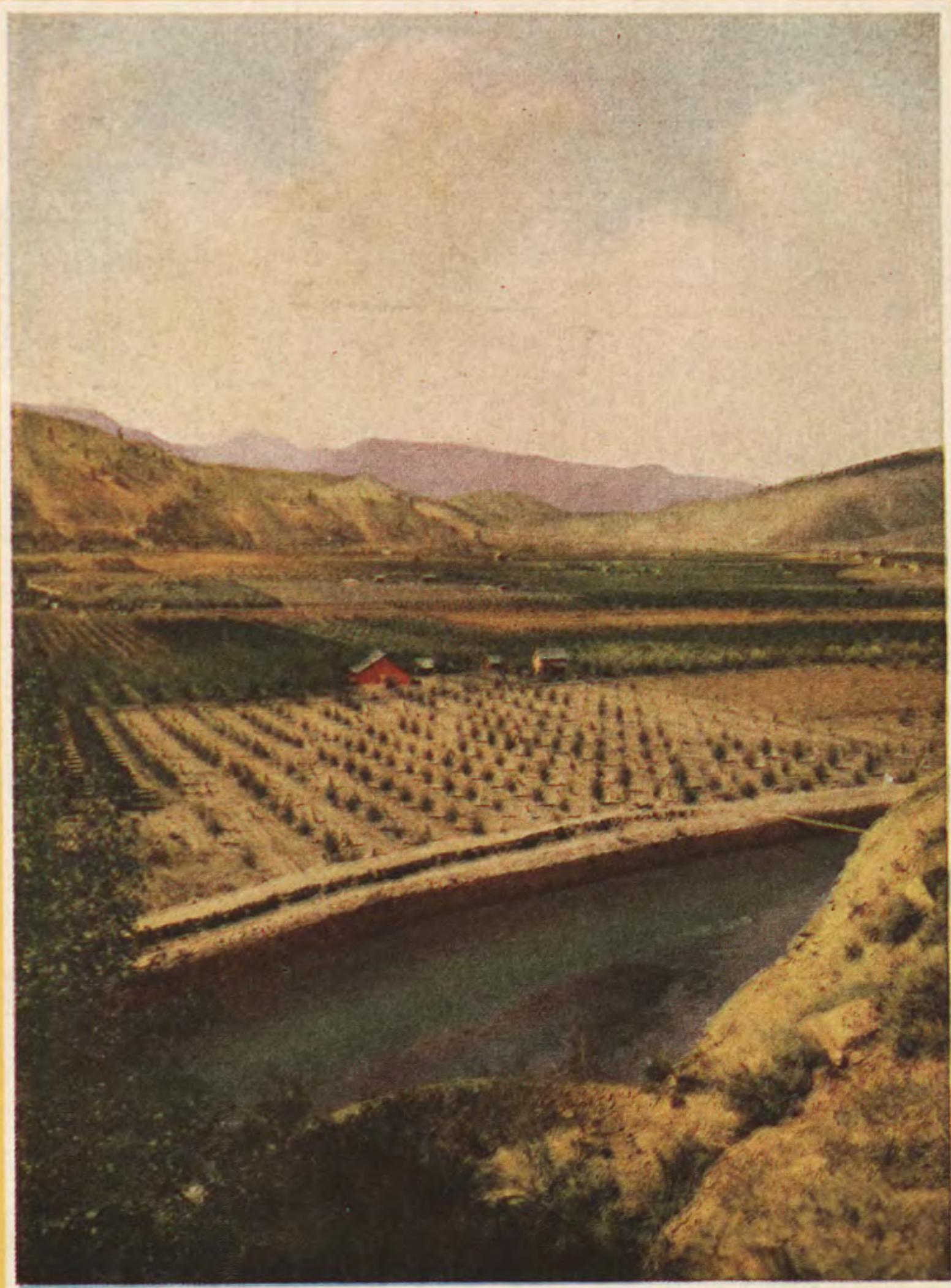


WASHINGTON



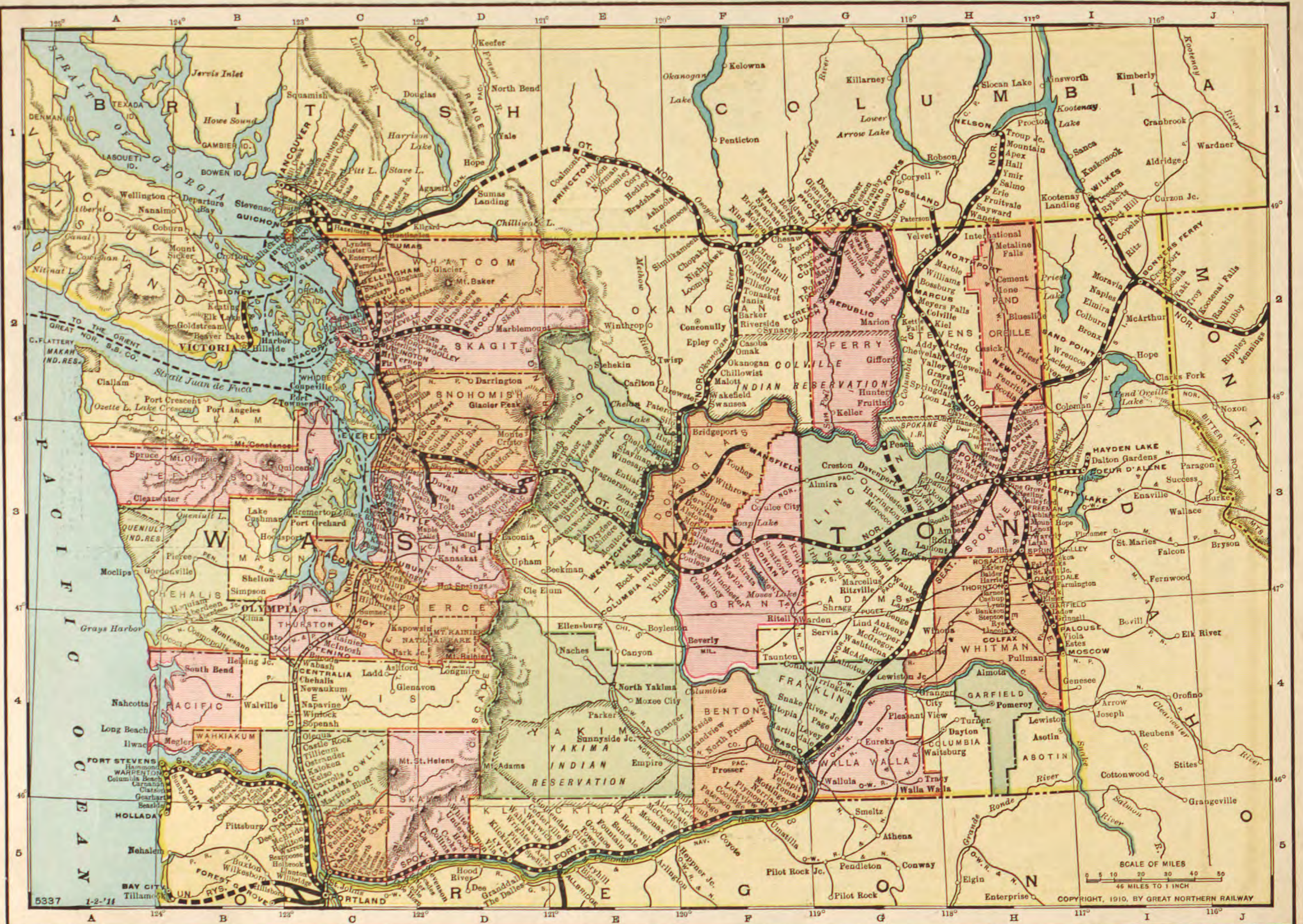
NORTHERN
IDAHO

"See America First"

**GREAT
NORTHERN
RAILWAY**

National Park Route

BRITISH
COLUMBIA



Washington — The Evergreen State



Typical Orchard Home on Columbia River Near Kettle Falls, Stevens County, Washington. A Similar Valley to This But Only Partially Developed Extends For 35 Miles South of Kettle Falls. This Valley Ranges in Width From One-fourth to One-half Miles With Several Benches, Especially Adapted to Fruit Growing, Mixed Farming, Alfalfa, Dairying, Etc. An Ideal Country in Which to Build a Home



*There Are Millions of Acres of Cut-over Lands in Eastern Washington Susceptible of Making Beautiful Homes Like This.
Land Values \$25 to \$35 Per Acre*

WASHINGTON



WASHINGTON is in the northwest corner of the United States, bordering the Dominion of Canada on the north and the Pacific Ocean on the west, and in all, contains 69,180 square miles, and has a population of 1,141,990 (census of 1910), while in 1900 the population was less than half that number, 518,103. Her agricultural products have outgrown her products of the forest more than three times, in which, in the early part of the past decade, she was a leader. The agricultural products of the state consist chiefly of wheat and other grains from the great tablelands of eastern Washington and the rich valleys of the western part of the state; apples, and other fruits and vegetables from the fertile irrigated valleys of the eastern part; dairy products, hops, berries, vegetables, poultry, etc., from the rich tidelands, alluvial valleys and cutover land of western Washington.

To appreciate the great diversity of her agricultural products it is necessary to understand the wide difference in the topography and climatic conditions in different portions. The state is divided by the Cascade Mountains into two distinct sections, about three-fifths lying east of the mountains and two-fifths west. The greatest difference is in the climatic conditions and the resulting difference in vegetation. West of the mountains, the country generally is covered by a dense growth of forest, principally fir and cedar, for which the abundance of rainfall in this portion of the state is responsible. This rainfall varies from 35 to 61 inches in the Puget Sound country. While it is said that at the present rate of logging the timber of western Washington will last one hundred years, large areas of cut-over or logged-off lands have already been created and the big development problem of western Washington is the clearing

up and farming of these areas, and as the forest areas are gradually diminishing, this development problem will continue for many years.

East of the Cascade Mountains, away from the mountains themselves, the country generally is great rolling tablelands with no timber except in the foothills of the mountains and in the eastern and northeastern portion. The principal rivers have cut great canyons, which, in places, widen into valleys. The soil of these tablelands and valleys is volcanic ash of great depth, rich in mineral plant food, generally of light texture and color but varying to some extent according to the amount of iron or other mineral, while the valleys that extend outward from the mountains and foothills contain considerable clay washed from the mountains. The distinct contrast between eastern and western Washington is the difference in rainfall, that of eastern Washington varying from below ten inches in the lower valleys, immediately east of, and at the foot of the Cascades, to 25 inches in the higher altitudes of the eastern part of the state. This lighter rainfall in the lower valleys is offset by the greater ease with which these valleys may be irrigated, the nearby mountains and streams furnishing an abundance of water for irrigation. Many of the valleys have already made rapid progress in development while others still offer opportunity in this direction.

The great development problems of eastern Washington are of three classes: namely, reclamation by irrigation of the many valleys of central, north central and northeastern Washington and development of dairying, stock raising and fruit growing; making the greatest use of the grazing possibilities of the surrounding hills and forest reserves; second, the clearing up and making of farms in the cut-over districts lying in the valleys, benches and foothills of the western slopes of the Rockies, which extend into this state; third, the settlement and improvement of the great areas of state lands and low priced private lands. These subjects and districts are treated in subsequent chapters.



Apple Tree 48 Years Old on Okanogan Smith Ranch Near Oroville, Okanogan County, Washington. This Tree is in Perfect Health and in 1912, Produced 72 Bushel Boxes of Apples

State Lands

There are over 2,000,000 acres of state land in Washington, more than one-third of which is classed as agricultural. Amount by counties is shown in following list:

COUNTY	Total Area, Acres	Agricultural, Acres
Adams	56,690	41,000
Benton	74,886	44,931
Chehalis	65,191	11,230
Chelan	49,294	9,024
Clallam	73,086	7,307
Clarke	27,649	22,387
Cowlitz	75,191	7,519
Douglas	95,503	50,000
Ferry	25,154	515
Franklin	38,365	20,365
Grant	85,698	34,280
Island	6,453	3,553
Jefferson	73,150	7,315
King	60,621	20,310
Kitsap	12,277	6,703
Klickitat	64,122	11,625
Lewis	84,035	29,517
Lincoln	56,450	41,160
Mason	40,886	5,000
Okanogan	72,253	1,835
Pacific	54,202	10,261
Pend Oreille	43,618	4,360
Pierce	48,169	21,084
San Juan	3,472	695
Skagit	84,650	20,000
Skamania	36,940	2,194
Snohomish	30,616	10,000
Spokane	31,083	17,525
Stevens	100,768	16,153
Thurston	25,935	8,000
Wahkiakum	22,760	15,552
Whatcom	31,925	7,462
Whitman	38,714	30,972

These lands are subject to sale or lease at public auction. Minimum price at which they can be sold is \$10 per acre, one tenth cash, balance in nine annual payments at six per cent interest. No restriction is made as to amount which may be secured by one person. Full information may be had by writing Commissioner of Public Lands, Olympia, Washington.

On account of the great variation of conditions in the different sections of the state it is necessary, in order to study it intelligently, to take it up in sub-divisions, treating each section according to its natural conditions. We have already given a general outline of the principal differences between eastern and western Washington and hereafter will sub-divide these greater divisions in order to treat each district, grouping together the counties and districts which have about the same natural conditions.

Opportunities in Washington



DURING the last decade the population of the State of Washington increased more than 120 per cent and the average valuation more than 300 per cent. Notwithstanding this wonderful increase in population and resources, there still remain vast areas of undeveloped land and enormous undeveloped natural resources. It is our aim, in presenting this bulletin on the State of Washington, to give a correct outline of conditions in the different sections where opportunities await the farmer, manufacturer, business and professional man. During the year of 1915 a great many persons will be planning a trip to the Panama-Pacific Exposition and we wish to outline herein information on the different sections which will enable everyone who wishes to include the State of Washington in his itinerary to be able to plan a trip to include the particular sections of the state which will be of the greatest interest. The material in this bulletin has been compiled with the greatest pains and by men who are thoroughly familiar with all sections of the state from every source from which authentic facts can be gathered.

Statistics are presented from the Year Book of the Department of Agriculture at Washington, D. C., and from the Biennial Report



Alfalfa Near Spokane. Alfalfa is an Important Crop in Washington

of the Commissioner of Agriculture, Labor and Industry of the State of Washington, as well as local civic and commercial bodies, and personal observation and experience of the representatives of this Immigration Department. The individual letters quoted are copies and extracts from original letters on file in this office. Incidentally, we make the request that persons writing direct to the writers of these letters enclose self-addressed and stamped envelope to insure reply.

We desire to emphasize the fact that no great benefit or reward comes without steady and well-directed effort and this is true as applied to opportunities for home making in the State of Washington. No one should expect to win something of great value without work, and it is to this class of people that we earnestly recommend the State of Washington for consideration, and the following pages for a thorough study.

To the Farmer

Washington extends an especial invitation to men and women who wish to live on farms, as here there are over 20,000,000 acres awaiting the energetic man with small capital and ordinary ability to mix his brains with muscle, to bring forth abundant crops—especially crops for immediate human consumption, such as dairy products, poultry and eggs, garden truck and small fruit, pork, beef and mutton. The amount of these articles imported into the state annually is surprising, and runs to many millions of dollars. It can all be produced in the state, and much more, for which a ready and high-priced market can be found in Alaska trade and elsewhere. Attention is also called to the thirteen condensed milk plants and over two hundred creameries in the state. Washington is exceptionally favorable for condensed milk production on account of its mild and equable climate, giving fresh green food for a steady supply of milk the year through, to say nothing of the great number of streams of pure mountain water, not only for the condensaries, but for pasture.

To the Manufacturer

The State of Washington is yet a new country in the exploitation of her natural resources from a manufacturing standpoint. Very few by-products are yet manufactured in the great lumber industry,

such as veneering, woodenware, furniture. Her streams will furnish thousands of horsepower for manufacturing, not only in the large cities, but in the smaller towns. She has an abundance of coal and raw metal in her hills and mountains. All these await the coming of men with the capital to develop. Not alone do we desire to call attention to the raw material for manufacturing to be found on the ground, but to the thousands of dollars annually sent out of the state for articles that can readily be made within the state cheaper than elsewhere.

To the Business Man

In this state, where the population is increasing steadily, it is a natural result for business to expand correspondingly. With an increase of 120% in population in the last decade, there should in the natural course have been an increase in the number of stores and business establishments to correspond. This increase in population is going on gradually, and, in addition, all classes are becoming more firmly established and able to surround themselves with more of the comforts and luxuries, creating a demand for a wider range in all merchandise lines.

To the Professional Man

The educational, scientific and professional problems of the State of Washington are calling for an increasing number of leaders in the professions at all times. Washington being well supplied with educational institutions of the higher order, their officers are constantly on the outlook for men with new and advanced ideas to train the coming generation. With the great problems of developing water power sites, irrigation systems, railway building, as well as other large building enterprises, there is an increased demand for engineering skill and ability.

To the Artisan and Tradesman

While building activities fluctuate in the large cities, in the whole State of Washington there is an increased demand for men of experience in all trades.



Corn is Fast Becoming an Important Crop in Eastern Washington

Dairying

The State of Washington offers many advantages for this pursuit. The mild climate, both winter and summer, aids in keeping the stock in good condition as to flesh and health, and climate combined with soil conditions produce abundant crops of feed at low cost, supplying green feed the year through except about three months, when, with alfalfa, silage and roots a comparatively small amount of feed will carry the stock to green grass in the spring. We have the best of authority that over twenty-five tons of the best forage for dairy feed has been produced per acre and as much as three crops in one season, two of grain and vetch and one of corn sufficiently matured for excellent feed. Secretion of milk is intimately connected with the water content of the food. The cow needs a large amount of water to drink and aside from this, feeds containing a high percentage of water, such as green forage, silage roots, etc. These also keep her digestion in tone.

While exact figures are not obtainable, the State Dairy Inspector estimates that \$7,000,000 worth of dairy products are imported into the state annually. Others estimate up to \$10,000,000, while it is believed by commission men that 75% of the butter and 90% of the cheese consumed within the state is imported. This chiefly comes from the central states on a rate averaging 2½ cents per pound and gives the local producer approximately this advantage in price, to say nothing of his cheaper production. Fresh milk near the large cities sells at 15 to 20 cents per gallon, butter fat 30 to 40 cents at creameries, and whole milk at condensaries from \$1.25 to \$1.65 per cwt.

There are more than 208 creameries operating in the state and as some of them are not operating up to their capacity, increased demand is indicated. There are thirteen large condensing plants in the state using about 125,000,000 pounds of milk and turning out between \$4,000,000 and \$5,000,000 in product annually. Washington condensed milk is in demand the world over and wherever plenty of milk is obtainable there is usually capital to start such an enterprise.

Pend Oreille, Stevens, Ferry, Okanogan and Grant counties in eastern Washington, and practically all counties of western Washington, offer unlimited opportunities in dairying, as will be seen from additional information given under description of these districts and counties.

An average income from an ordinary cow on farms is about \$75 per year, and for thoroughbreds upward of \$100, while in the most

scientifically operated dairies the gross income from a good grade cow is about \$100 and best thoroughbreds up to \$150 per year.

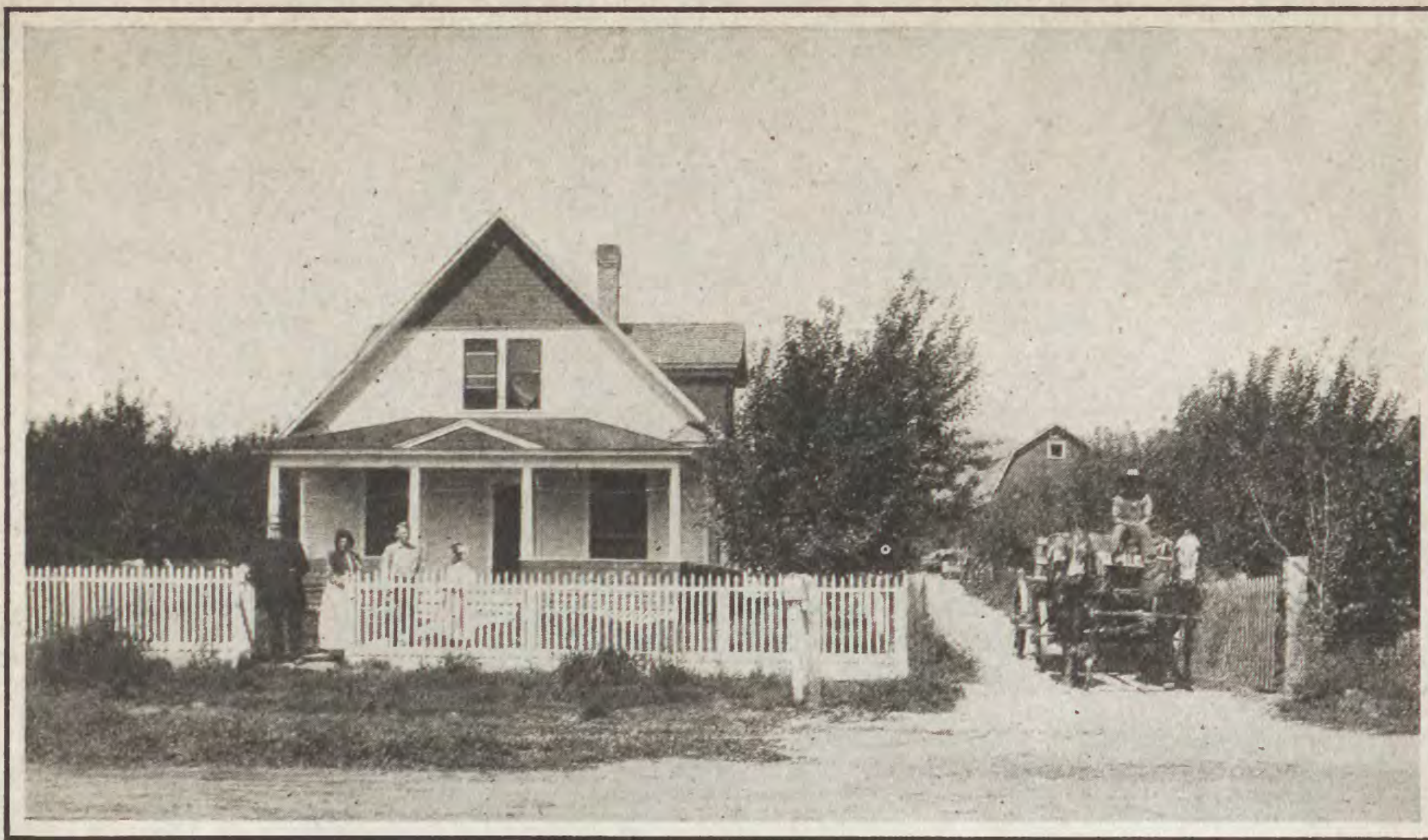
Dairying in the entire State of Washington is reaching an advanced stage of perfection in point of high grade stock. Many of the leading dairies contain only thoroughbreds. A recent purchase of nineteen thoroughbred cows by a Tacoma dairyman amounted to \$10,000—all registered Holsteins. A dairyman of the Palouse at the Inter-State Fair at Spokane in 1913 paid \$1375 for "Hazelwood Bracelet De Kol," one of the finest animals of this famous strain of Holsteins ever produced. The record of "Netherhall Brownie 9" owned by a leading Seattle dairyman, 18,110 pounds of milk and 820.91 pounds of butter fat in 365 consecutive days, broke the world's record for Ayrshires; and at this time his "Tilly of Willowmoor" has just completed a year establishing a new world's record for this breed.

Well kept fields and buildings and a general air of thrift and business management mark these Washington dairies as the most profitable in America.

Stock Growing

While many other features of farming are fairly established in the State of Washington stock growing for beef and pork on farms is barely in its infancy. Thousands of draft horses are produced for the city and lumber camp markets with good profit, and while few farms make a specialty of horses many of them produce a small number of thoroughbreds each season.

In all sections of Washington cattle and hogs may be raised in connection with dairying and grain raising—cattle in the sections where open range is available, and irrigated lands for the home ranch and production of fattening and wintering feed of alfalfa, corn, beets, etc., and hogs in the dairying and grain sections to take up the waste, pasture on winter seeded grain, and fatten on grain, corn, roots and slop. These form the chief sources of income on all mixed farming establishments. The increase of 29% in cattle and 101% in hogs during the last census decade indicates the gradual stocking of farms and the change from pioneer days of marketing grain. In addition, any deficiency of moisture on grain farms and consequent lack of chemical action in preparing for plants an abundant supply of mineral plant food, can be greatly overcome by use of the manure on fields. The ultimate maintenance of farm fertility, even in the richest soils, must depend on production of stock. Not alone, however, is consideration of the benefits to the land the



Ranch Home of Elder A. B. Peters on Sunny Slope, Wenatchee Valley

determining factor, but advancing prices for beef and pork will give greater profit by feeding every pound of produce and turning it off in finished form. Interesting data on this subject is quoted from U. S. Department of Agriculture, Farmers Bulletin No. 560, just issued, as follows:

"In the last six years the number of beef cattle in the country has apparently fallen off over 30%, while the population has of course increased. According to estimates of the Bureau of Statistics of the Department of Agriculture the beef cattle in the country on January 1, 1907, numbered 51,566,000 and at the beginning of the present year (1913) the number was only 36,030,000. Meanwhile the number of dairy cows has remained practically stationary. * * * The slaughter of beef under government inspection, which covers more than half of the total slaughter of the country, shows a steady falling off since 1910, the total decline amounting to over 800,000 carcasses. * * * Applying the ratio of federally inspected slaughter to total slaughter according to census figures of 1909, this means a falling off of 1,419,000 cattle * * * from 1910 to 1913. * * * Our once great trade with England in cattle and fresh beef has vanished. * * * From 1904 to 1906 our exports of live cattle approximated 600,000 head annually. For the last fiscal year (1913) they numbered only 24,714, only one-tenth of which went to Great Britain. * * * It appears that England alone could probably take all of the foreign (Australian and South American) beef available for export, to say nothing of the new markets that have already been formed in other European countries. We shall therefore have to bid against England and other purchasers of foreign beef and this competition will tend to keep up prices. It must be remembered too that this foreign beef is not up to the standard of quality of our beef. In view of the present meat situation at home it is unlikely that our cattle raisers will have much to fear from foreign beef. * * *

ECONOMICAL PRODUCTION OF MEAT

"At present the most fundamental factor in profitable meat production is the cost of pasturage and feed. The ranges of the west are falling off in their meat production because their areas are decreasing."

Aside from the general conditions throughout the country the local condition in Washington is promising for beef and pork. Figures gathered from firms that ship cattle into the state, on the hoof, show that more than \$7,000,000 worth of live cattle were brought in for consumption during the year 1911, and about \$5,000,000 worth of hogs, not including dressed pork. At present, total value of hogs in the state is but \$2,000,000, two-thirds east of the mountains.

With the abundance of open range and forest reserve of Washington pasture is plentiful, and, according to the best informed authority, alfalfa, crushed grain, stock beets, etc., all of which grow abundantly on the irrigated lands and grain farms of eastern Washington, will produce equal or superior results to corn in finishing stock for market.

The hog is a by-product of all farming. He eats every form of waste, and aside from this he may be fed in Washington on corn, peas, wheat, barley, alfalfa, clover, mangel wurtzels, beets, artichokes and rutabagas. Tons of grain are shattered in harvest and left broadcast to volunteer and mix subsequent crops. Hogs in many parts of Washington feed the winter through on such waste, volunteer grain growth, and winter seeded grain. Where a business is made of hog raising they can be produced for from three to four cents per pound, and local prices are usually from seven to nine cents. With plenty of good water, shade, cool air, and with no extreme weather, Washington offers advantages in hog raising not found in any eastern states.

The experience of a western Washington farmer illustrates the profits to be made from dairying and stock raising. On 80 acres he keeps 40 cows, 100 hogs and some horses. Hogs are fed skimmed milk, grain, peas and pasture. They are sold at six to eight months, weighing 150 to 225 pounds. In 1910 his hogs brought \$1470.80 and the farm a total income of \$5300, after deducting for hired labor, loss and incidental expenses.

Poultry Raising

Washington needs at present more than twice as many fowls as she has to supply her wants in poultry and eggs. While less than \$5,000,000 worth of eggs are produced in the state, more than \$10,000,000 are consumed, and the price for eggs is always above the average in eastern states, ranging from 20 cents in summer to 60 cents in winter, to the producer. The increase in production has not kept pace with the increased population and the price is steadily advancing.

As in other livestock pursuits, the climate of Washington is the most important in poultry raising. No sudden changes, nor extremes of heat or cold, no severe rain or hail storms, all conduce to the profit of this industry, reducing the feed requirements and housing outlay and increasing the output of eggs and chicks. Winter laying is common among Washington flocks, where a little attention is given to breeding and housing. Disease is almost unknown among poultry in this state. The average for the United States in eggs per hen is 95, while in Washington it is 120, and the 150 to 200 egg hen is not uncommon. The world's record for a single hen is held at Kent, Washington, 295 eggs in 365 days.



Cut-over Lands Eastern Washington. On Account of The Low Price of Land and Productive Soil These Lands are Proving Very Attractive to Homeseekers

EASTERN WASHINGTON



HIS division takes in all of the country from the eastern border of the state to the top of the Cascade Range.

TOPOGRAPHY: This region embraces the Spokane country and northeastern Washington, including many fine valleys—Spokane and Arcadia Valleys, Kettle Falls Valley on the Columbia River, Colville Valley, Pend Oreille Valley—separated by wide ridges of forest covered hills with an occasional natural meadow or stretch of prairie. It is in this portion of eastern Washington where the cut-over and logged-off lands, which are referred to later, are found. Directly south of Spokane is the Palouse country, a rolling prairie district adapted to the growing of grain and stock. To the west of Spokane and extending for 150 miles are to be found great tablelands known as the Big Bend Wheat Country, including the great Quincy Valley described separately. This is rolling prairie adapted to the growing of grains and stock, with an altitude ranging from 1800 to 2200 feet. The region lying between the Cascade Mountains and the Columbia and Okanogan rivers on the east embraces the wonderful fruit valleys of Wenatchee, Entiat, Chelan, Methow and Okanogan, divided by the foothills of the mountains, which supply great areas of grazing land. To the north in Okanogan County these foothills spread out in great tablelands and benches and with similar lands east of the Okanogan River constitute the farming and dairying lands of north central Washington. North of the Columbia River and east of the Okanogan lies the south half of the Colville Reservation and Ferry County, which are grouped with the farming and dairying lands of Okanogan County, having the same general conditions.

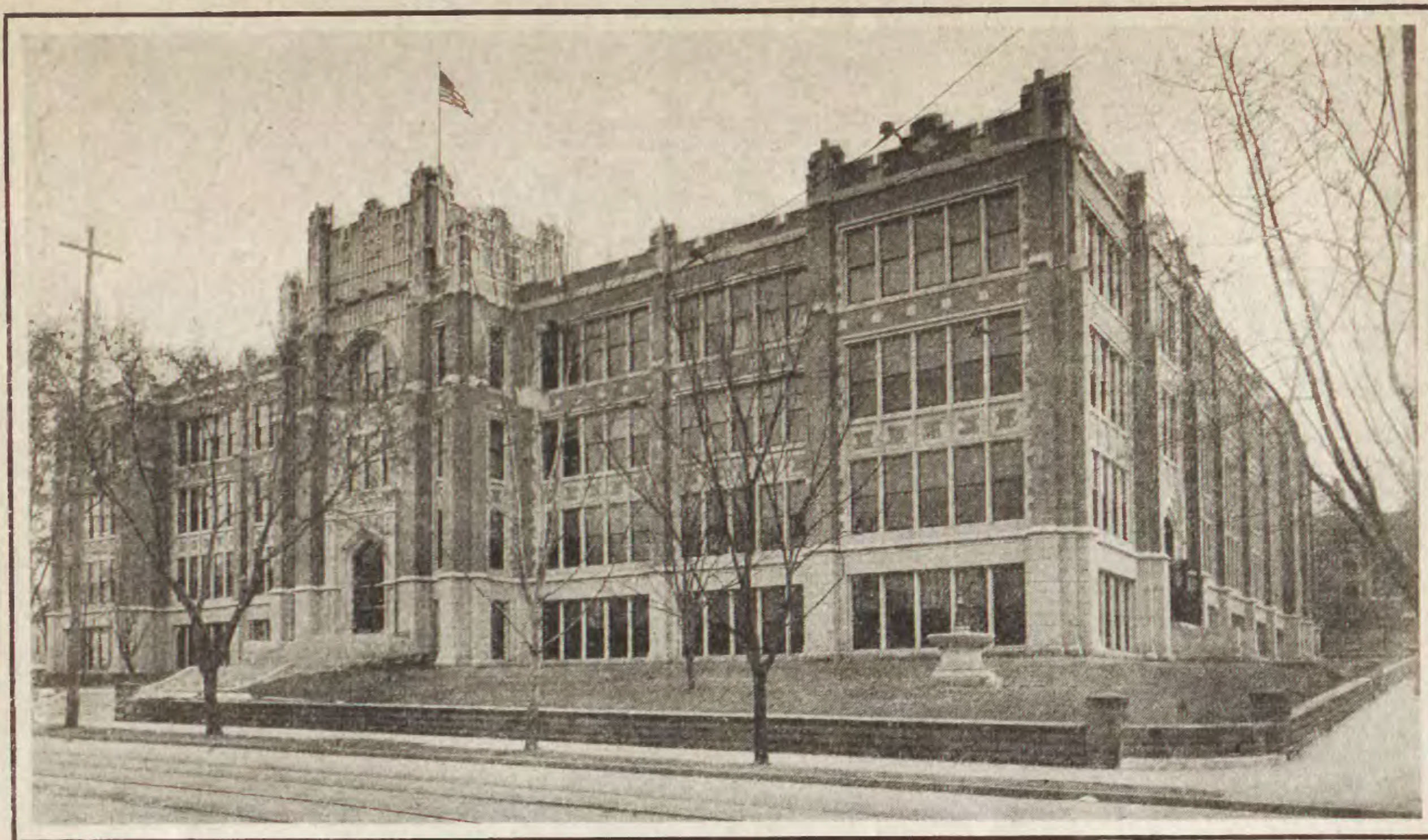
The Climate

The climate of eastern Washington is one of its most attractive features. Winters are short and comparatively mild; there are but

few cold days when the temperature will go to zero or slightly below, and as a rule the lower temperature is at night. Most days throughout the colder months vary from about 25 to 45 degrees above, with the nights from ten to twenty degrees colder, the lowest monthly average for Spokane being 27 degrees above zero. The summers are long, and while some days are warm the mountain breezes in the evening reduce the heat, making cool pleasant evenings and nights. The highest monthly average at Spokane is 69 degrees above zero. In the valleys along and tributary to the Columbia River where the altitude is from 600 to 1200 feet above sea level many of the summer days are warmer than on the higher tablelands and valleys and the contrast between warm days and cool nights gives these valleys an advantage in fruit production.

The Rainfall

Rainfall in the low valleys along and tributary to the Columbia, where the altitude is low, ranges from 7 to 10 inches per annum, but on the tablelands immediately adjoining the Columbia and Okanogan rivers, where the altitude averages about 2000 feet above sea level, the rainfall averages about 14 to 18 inches per annum. In the extreme eastern part of the state in the Palouse and Spokane country rainfall averages about 20 to 25 inches with the varying altitude, and in northeastern Washington in Stevens and Pend Oreille counties which are nearer the Kootenai and Selkirk mountains the average normal is fully 25 inches per annum. In eastern Washington the greater part of the annual precipitation falls during the fall, winter and spring, from about the first of October until the first of April, which fact, together with the fine friable soil makes an ideal condition for the growing of grain and root crops, especially in the regions of lighter rainfall where it is desired to practice the system of summer fallow without crop, or dry-farming, as practically all evaporation of moisture is prevented through the summer months with comparatively little extra labor.



High School Building—Spokane

The Soil

The principal soil of eastern Washington is the volcanic ash mixed with a varying quantity of vegetable mould or wash from the mountain benchlands, according to location. This ash soil is rich in mineral plant food and capable of producing abundant crops with its natural elements, except in the regions of lighter rainfall where there is a deficiency of humus. This is readily supplied with barnyard manure and the growing of leguminous crops, following mixed farming with grain and stock. There is so much variation in soils that it can be more intelligently handled under the head of each district.

Markets

Eastern Washington is exceptionally well situated with reference to markets. The surplus of grain and hay is marketed through Seattle, Tacoma and Portland, where the hay goes chiefly to the Alaska trade, aside from consumption in these cities, and grain is manufactured into flour and exported to the Orient and European markets. With Spokane and her 105,000 people who must be fed first, to say nothing of the numerous mining and lumbering camps in the nearby mountains and forests of this state, Idaho and British Columbia furnishing a steady local demand for beef, pork, mutton, poultry, eggs, butter and dairy products, and from the fact that several hundred cars of these articles of food are shipped from the central states each year, it is needless to say that prices for these food products are always high.

Transportation

A reference to the map which will be found on the inside of front cover of this bulletin will demonstrate the advantages enjoyed by the entire State of Washington from the standpoint of transportation. The Great Northern main line crosses the state from east to west, with a branch into northeastern Washington which swings west into the Okanogan Valley, thence south to connect with the main line again at Wenatchee; the coast lines between Portland and Vancouver and its small branches; the Spokane, Portland & Seattle between Spokane and Portland and the Inland Empire System, and other small branches not mentioned. The Great Northern is in a position to furnish its territory with the best of marketing facilities.

The Spokane District



POKANE County has an area of 1680 square miles. The city of Spokane, with a population of about 105,000, is the principal city. The Spokane River with its great valley to the east of the city for 18 miles divides the county east and west; the south half being rolling and contains some of the best agricultural land in the county, of about the same general character as Whitman County. Grain raising and dairying form the chief farming activities, along with sugar beet raising. The only sugar factory in the state is located at Waverly and is a half million dollar plant. Over 1,000,000 bushels of wheat are raised annually and the mills of the county have a combined capacity of 3,600 barrels of flour daily.

The northern half of the county outside of the valley of the Little Spokane River and Arcadia Valley is rolling, of a mountainous nature and covered with forests of pine and tamarack. Thousands of acres of these mountain benches when cleared of their timber make the finest grain, dairying and fruit farms, while the rougher portions are adapted to grazing. The largest terra cotta plant in the west is located at Clayton, where there is an immense deposit of fine clay.

Arcadia Valley

During the past four years in the Arcadia Valley in Spokane County, there has been developed a tract of orchards beginning about twenty miles north of the city and extending along the Great Northern Railway on both sides, north and south from Deer Park, a town of about 1500 people, with two other railway stations within its borders. To this time about 7,000 acres of orchard have been planted and with all operations about \$1,200,000 have been expended in the development of the tract. This land has been sold in five and ten acre tracts to individuals and is being developed under one management. It is the most extensive project of this kind in the state.

During the past season about 3000 boxes of apples were produced on the first season's planting, now 3½ years old. The entire region is a level to gently rolling surface in a wide valley surrounded on all sides by forest of second growth pine, as was the land itself



Growing Vegetables Between the Rows of Young Trees in Spokane County

until in 1909. Many grain, stock and dairy farms have already been carved out of the same forest and many more may be made in the lands yet uncleared.

The Spokane Valley

This valley lies along both banks of the Spokane River east of the city and extends into Idaho, in all about 32 miles, and is supplied with water for irrigation from the Spokane River, Coeur d'Alene Lake and other smaller lakes in the adjoining highlands. It is a remarkably well located district with rapid and frequent transportation to the city but a few miles distant, furnishing a ready market for all produce and small fruits in season. The valley is only partly developed and prices for acreage tracts are reasonable when considered in connection with the advantages offered. Many persons engaged in business in the city have homes in these highly developed suburban districts and the home value of these tracts in connection with city business pursuits has made them develop rapidly and present prices seem high on first thought. Many of these small orchard and fruit tracts have been paid for with produce grown between the rows of trees while young.

The rainfall here is about 17 inches per annum but irrigation is provided for these orchards from a substantial water supply to provide against injury to fruit from a drouth at a critical period of maturing.

The City of Spokane

Spokane, gateway to the Pacific northwest, and most important railway center west of the Missouri River, has a population of 104,402 (census of 1910), and is enjoying a healthy and steady growth, due to its advantageous location, as the metropolis and commercial center of an immense territory between the Rocky and Cascade mountains including southern British Columbia and northeastern Oregon. Besides the immense agricultural, timber and mineral resources, Spokane has wonderful water-power possibilities to build up manufacturing industries and transportation facilities. In 100 miles the Spokane River has a fall of 1200 feet with a heavy minimum flow—a possible 400,000 horse power, with about 150,000 already developed. In addition power of the Columbia River is tributary to this city and experts claim over 3,000,000 horse-power possible of development in the entire Inland Empire. There are over \$50,000,000 invested in manufacturing enterprises in the city of Spokane. Chief lines of manufacture are lumber and lumber products, brick, tile, pipe, terra cotta, cement, flour, cereal products, candy, bakery

goods, etc. There are 215 manufacturing plants located in the city. Bank clearings for 1912 were \$225,000,000. Total payroll amounts to approximately \$8,000,000 per annum. About 100 miles of street railway are in operation in the city, which has some of the most beautiful residence sections of any American city. Several hundred miles of electric lines extend into suburbs and farm and orchard districts in eastern Washington and northern Idaho. Architecturally Spokane is well advanced, and her public and business buildings would do credit to a city of 1,000,000 people. With the Spokane River and beautiful falls in the center of the city, Spokane is well drained and one of the most healthful cities in America, with a civic center that is being rapidly developed and beautified. Many beautiful parks have already been created and with the mountainous region adjoining, in which are nestled many small lakes teeming with fish, surrounded with natural forest abounding with game, Spokane offers the dual attraction of the mountain fastness and the thoroughly cosmopolitan city, all within a few minutes to an hour's street-car ride.

Mr. John Warner, Mead, Spokane County, Wash., writes—

"I came to this section three years ago from New Brighton, Minnesota, and bought cut-over land which we are now clearing. Logged-off lands are now worth from \$20 to \$30 per acre and when cleared is good vegetable, fruit, grain and hay land. There is plenty of rainfall. This is a good country for the poor man as he can get cheap cut-over land and sell lots of cordwood as well as a few logs. There is plenty of work. There is more money in dairying than anything else. Butter and milk always bring good prices. Wheat made 40 bushels, oats 60, potatoes 300, hay two tons."

Wilson G. Pike, Elk, Spokane County, Washington, writes:

"I came to this locality from Lawrence, Kansas, in 1904. Have farmed ever since. Started with one pony, a cow and five acres cleared. I am now improving 100 acres, have ten head of cattle, four horses and 40 acres in crop. Sell some cattle every year. Also have 150 thoroughbred hens. Raise ten tons of rutabagas and carrots per acre, 150 sacks of white potatoes per acre, and three tons of timothy is not unusual. Chances for poor man to start still good in the northern part of Spokane County where cut-over land can be bought for \$20 to \$25 that will produce wheat, vegetables and alfalfa without irrigation. \$500 in cash is enough to start. If a man is industrious and will live economically he can soon have a good home. We are within 25 miles of Spokane and ship our cream and butter there. Farmers are buying thoroughbred Jerseys and Holsteins. Climate agrees with us and we have perfect health."

Government Homestead Lands

There is practically no free government land of any agricultural value in the State of Washington. There are a few isolated homesteads in the benches of the Okanogan district and also a few in the northeastern section of Washington, but they are only partially suited to cultivation. In the forest reserves there are a few claims



18 Tons of Potatoes Per Acre on Cut-over Lands. Grown by J. F. Leighton, Colville, Stevens County

that are thrown out after having been inspected and found to be more suitable for agricultural purposes than for timber. There is a provision whereby such claims are being excluded from the reserves and they then become subject to homestead entry although within the boundaries of the forest reserves they are not even a part of it. On account of their being surrounded by the reserves it makes them less desirable and more isolated. There is not a sufficient number of these claims being excluded to justify any special mention being made of them.

The Palouse Country

This name is applied to the district lying south of Spokane and embracing all of Whitman County and while the border of the region known as the Palouse Country is more or less indefinite it may be said to embrace the adjoining portion of the counties surrounding Whitman. The surface is rolling, with long and wide ridges or hills and clear-cut valleys, of sufficient length and breadth to prevent being termed hilly. It is drained by the Palouse River and branches, which flow west and southwest, the predominating slope of the entire region. A number of small lakes and coulees are found in the eastern edge of Adams and Franklin counties which supply a limited quantity of water for irrigation by both gravity and pumping. The soil is of rich dark loam, underlaid with clay, and of comparatively fine texture, friable and easily worked. In the western portion the soil is mixed with volcanic ash and is of lighter texture and color but where farmed properly gives abundant crops of grain and forage. The climate is mild, with little zero weather in winter and considerable snowfall. Potatoes, artichokes and other roots left in the ground over winter are rooted out by hogs or dug in the spring unharmed by frost. Summers are long with considerable rain in spring and fall but comparatively little in summer. Rainfall varies from about 12 inches in western portion to 25 inches in extreme eastern and northern portion. The principal crops in past years have been wheat, oats, barley and hay, and 90% cultivated. This district has produced nearly one-fourth of the wheat of eastern Washington in past seasons but has been producing many cattle, hogs and sheep, and a greater diversity of crops of late years. All farms in the entire region should be handled in this progressive manner, each 160 acres turning off at least a carload of hogs or cattle and two of wheat annually, or vice versa, and when this practiced is all the \$35 to \$50 land in the district will advance to the higher level of values. The

district is well served with transportation and market facilities. The Spokane, Portland & Seattle Railway runs southwest across the district with a number of small towns on its line, of which Lamont, Wapato and Kootenai are the principal ones; and the Inland Empire Electric System, with two lines, runs north and south through the eastern portion with many good towns and cities, such as Pullman, Colfax, Palouse, Garfield, Farmington, Oakesdale, Thornton and Rosalia as the principal ones. The Washington State Agricultural College and Experiment Station are located at Pullman and the county seat is at Colfax. This region is entitled to the consideration and investigation of the middle states farmer who wishes to locate in a well established farming region where values are on a substantial basis and where the pioneering has already been done but where prices are still low as compared with what the land will produce.

With advanced development of the farms alfalfa is coming into more common use and aiding wonderfully in diversifying farming operations. Values of the better improved farms range from \$50 to \$100 per acre.

Mr. Chas. G. Losey, Colfax, Whitman County, Wash., writes as follows—

"I have farmed in this section for 20 years and grow all kinds of farm crops and everything does as well as where I came from in Michigan. Fruit and vegetables do equally as well as farm crops. A man can start here in a small way with \$500 to \$1,000 in cash. We have a creamery in Colfax. Land values range from \$60 to \$80 per acre. We have a very healthful climate and are satisfied with this country."

Mr. B. F. Duffel, Pullman, Whitman County, Wash., writes—

"115 acres of wheat made 40 bushels per acre; 25 acres of oats 60 bushels; one-half acre of potatoes 100 bushels; six acres of hay two tons per acre, and 60 acres of barley 80 bushels per acre."

Stevens County--Pend Oreille County

These counties lie to the north of Spokane County and embrace all territory to British Columbia. Before the creation of Pend Oreille County this was one of the largest and least developed in the state, containing about 4500 square miles and a population of about 25,000 people. This section is largely covered with forests of pine, fir, cedar and hemlock. There are 370,480 acres of natural forest in Pend Oreille County, subject to sale of the timber and grazing under national forest regulations.

Three distinct valleys cover these two counties extending north and south their full length, separated by high ridges covered with forest penetrated at irregular angles to the valleys by smaller streams.



One Dozen Calves Valued at \$300 Each on Hazelwood Ranch Near Spokane

The two main ridges dividing these valleys culminate in peaks between 5000 and 6000 feet above sea level, giving shelter and protection to the valleys, making of them ideal stock raising and dairying sections, as well as giving features that make certain the value of these lands for fruit production.

The first of these valleys, the Pend Oreille, on the east is drained by the river of that name. The Colville Valley extends through the middle of Stevens County north and south and the most westerly and lowest one is the Kettle Falls Valley along the Columbia River. The reader's attention is called especially to letters from settlers for detailed information as to farm activities, land values, products, etc. The noticeable difference in land values is due to the great diversity of conditions prevailing throughout the region. The natural meadows and bottom lands and benchlands best adapted for fruit growing being the highest in price at from \$100 to \$250 per acre, improved farms on benchlands from \$50 to \$75, and cut-over unimproved lands from \$10 to \$35 per acre, according to location and natural advantages. The soil varies, being a heavy black loam in the valley bottoms, which, owing to their location, are natural hay lands and spoken of as such, and for the most part have been drained either by tiling or deepening the water channels. The benchlands vary from black to red sandy clay loam soil with clay subsoil, many places being sub-irrigated, while the higher benchlands are a dark clay loam of light texture, easily worked and friable, but with varying quantities of gravel particles. As will be noticed these benchlands are well adapted to the growing of alfalfa and grain crops and fair crops of corn, which is of especial value as silage and will be of even greater value when silos come into more general use. To the eastern farmer the possible betterment of the land and land values will be obvious from the greater diversification of farming operations, keeping more stock, especially hogs. When the great advantages of diversified farming are brought home to every farmer of this region not only will values advance materially on farms already improved, but the cut-over lands will be taken up and settled by the incoming homeseekers and rapidly cleared and converted into valuable farms. Special attention is called to an article in this bulletin on clearing logged-off lands. The rainfall of these two counties varies from 24 to 30 inches per annum. Most farming is done without irrigation. Climate is mild both winter and summer with no extremes nor severe storms.

Different lumber companies of Spokane and Newport, Washington, have large areas of logged-off lands for sale in these counties at low prices and on easy terms.

Newport, with a population of 2300 is the county seat of Pend Oreille County. In the fertile country tributary to Newport diversified farming is the rule. The natural meadows of the valley furnish grasses running high in butter-fat producing qualities while the cleared bench lands are especially adapted to the production of all the tame grasses, affording the dairyman an exceptional opportunity for the development of this industry. Oats produce from 60 to 100 bushels, wheat 30 to 60, other small grain in proportion. Timothy hay is one of the most profitable farm crops, producing two to three tons, usually netting \$12 to \$18. Clover produces three to five tons.

The country in the vicinity of Newport is fast becoming famous for the production of small fruits and vegetables. It is especially adapted to the successful growing of strawberries of enormous size and large production. The cut-over lands may be purchased at from \$20 to \$40 per acre depending upon the location, and the description of how to handle the cut-over lands in eastern Washington applies to the Newport district, as well as to other localities in the eastern part of the state.

Colville, population 1512, is the county seat of Stevens County, and the metropolis of the county and Colville Valley, famous for its great crops of timothy, clover and alfalfa hay, its wonderful dairying possibilities, as well as many already developed dairy farms, in addition to the lumbering which serves to give the man of small means a foothold, furnishing plenty of work at good wages during time that can be spared from farm work.

E. I. Smith, Springdale, Stevens County, Wash., writes—

"I came here from Hakes, Pa., in 1905. I have raised clover and timothy and three and one-half tons of alfalfa the first cutting and two tons the second cutting. There is good pasture for cattle. Have raised potatoes, beets, rutabagas and all vegetables. Oats made 75 to 80 bushels, wheat 30 to 35, carrots 300, rutabagas 200. Oats grow as high as a man's head and alfalfa up to his shoulder. All kinds of fruits do well. Cut-over timber land is now worth \$20 to \$35 per acre. Irrigation is not necessary but some places may be watered. Most of the land is sub-irrigated. I make a good living, keep four cows, two horses and some chickens. Butter brings 40 cents per pound. It is a good country for hogs. Any man with \$1000 or \$1500, or enough to get along for a year, can live here. He can make a living and there is plenty of good wood and water. There is no creamery in this section but cream is sold at good prices in Spokane, which is 47 miles away. The climate is very healthful."

Wallace Strong, Curlew, Ferry County, Wash., writes—

"Came to this country in 1905 from Imlay City, Michigan. Took up a homestead and had to borrow money to bring out my family. Now have 50 acres broken, eight horses, eight cattle, five hogs, 50 chickens, and good buildings. All kinds of grain and vegetables do well. Would not sell at \$5000 and have made it all in a few years. Conditions could not be better for dairying and creamery as our town takes all of the cream offered. Climate and health good."



Cut-over Land in Stevens County Offers Splendid Opportunities for Homeseekers

C. H. Arnold, Loon Lake, Stevens County, Wash., writes:

"We have a fine dairy country on account of so much feed and mild weather and all farmers have separators. We get 17 to 22 cents for milk and 22 to 37 for butter-fat and there is good demand for all that we can raise. Much of the cut-over land can be purchased at \$20 to \$30 per acre and much of the cheap land has enough timber and cordwood on it to pay for it."

A representative citizen of Kettle Falls, Wash., Mr. E. A. Baldwin, writes—

"I came here from Chicago in 1905. Found a country that does not have the extreme hot and cold of northern Illinois. Cool nights in summer and seldom below zero in the winter with but little wind; quite a fall of snow with absolutely no drifts. Longer seasons than Illinois. A climate that is almost ideal for invalids or those with weak lungs. A marvelously productive soil and the quantities and quality of fruit grown in this section are unsurpassed. Have never seen wormy fruit here and the fruit keeps well. I have grown carrots eighteen inches in circumference, fine potatoes, corn, tomatoes, cabbage, etc. Building material and wood is cheap. Common lumber is \$8 to \$12 per thousand and wood from \$2 to \$3.50 per cord. The country is adapted to intensive farming, poultry raising, fruit growing, etc."

W. L. Huffaker, Hunters, Stevens County, Wash., writes:

"I came here in 1906 from Straw Plains, Tenn. Bought 160 acres. Have had good crops of all kinds, especially fruits and vegetables. Raised wheat, oats, barley and very good corn. Improved farm and grain land selling from \$40 to \$50 per acre. Irrigated fruit land \$250 to \$400 per acre. This is a good dairy country and I have done real well in dairying, getting 32 cents for butter-fat at the creamery near here. This is a good country for a poor man as he can get land cheap and can get employment at far better wages than in the east."

S. A. Oens, Gifford, Stevens County, Wash., writes:

"Have lived in this section for fourteen years. The land here properly located is the best fruit land. The benches are better for raising grain, stock and dairying. It is still a poor man's country. With \$1000 worth of outfit he can start on a rented place or buy cheap land. I raised 40 bushels corn, 150 bushels potatoes, two and one-half tons alfalfa per acre. Improved bench land, worth \$50 to \$100 per acre. In the valley along the river front, which is the fruit land, as high as \$200 and \$250 per acre, with water right. The climate is good and an ideal dairying country."

Logged-off Land



THE man looking forward to locating on logged-off land the cost in labor and money of clearing is most important. The first crop of the average homesteader, if within reach of transportation, is the remaining standing commercial timber and additional growth since logging operations. This crop usually consists of cordwood, and in some cases cedar posts, shingle bolts, etc., and, if a paper mill is within reach, tons of pulp material. If these items are carefully handled the net revenue from the average quarter section will be about \$2500; some quarters less and many a great deal more. Preparing and marketing these products usually covers a period of years, depending on the resources

and equipment available. During this marketing process there are times when team work cannot be profitably employed owing to weather conditions and it is these times that the settler will use clearing a little land to make a start at farming operations.

As a general rule the cordwood and other products from a piece of logged-off land will about pay the first cost of the land.

The soil of these lands ranges from a heavy clay on the river to a sandy loam on the benches. These bottoms are usually covered with a heavy growth of alder, birch and other deciduous trees and brush, as well as cedar, white pine, etc., and are too moist for fruit culture but well adapted for small grains and grasses. The higher and better drained lands are more adapted for legumes, vegetables and fruits, having a sandy clay loam soil, and these uplands or benches as they are called, constitute about 75% of the available areas for agricultural purposes in Washington.

After the cordwood and marketable material has been removed the slashing and burning of brush and rubbish, leaving the land free of every thing but standing stumps, should not exceed \$10 per acre, in labor. Slashing should be burned in the fall and a mixture of pasture grass seeded in the ashes before the heavy fall rains. No harrowing is necessary as the light ashes form a good seed bed and a heavy rich pasture is assured the following season which will endure on any of these soils until wanted for other purposes. If any portion of the seeded area is sufficiently free from stumps to permit the use of a mower this should be fenced off and a fair crop of hay can be cut the first year, with a full crop the second.

Some stumps may be pulled from the pasture land each year with a team and chain to provide plow land for wheat or rye, which, if planted early, by September 20th, will make a fair yield the first year if the soil has been plowed deep and well harrowed and free from small roots. Shallow plowing is time and money wasted. If timothy or blue grass is desired this should be sown with the grain and dragged in with peg-tooth harrow. The hay should yield four or five tons the second year without the use of fertilizer.

Stock may be fed on wheat hay with carrots until the timothy is ready for use and alfalfa may be purchased to supplement the wheat and carrots for cows. Open timber affords good pasture during summer months and grain stubble furnishes considerable feed for hogs and poultry. Thousand-headed kale, on land well manured, will furnish the most green food for stock. Oats will do best on bottom land and should not be put on the benchland until manured or clover plowed under. Barley is not as profitable as



Vegetable Growing Between the Rows of Young Trees Near Newport. This Development Shows the Possibilities of the Cut-over Lands

wheat for either grain or hay. Clover will do well on the new land if plowed deep in fall, harrowed frequently in spring, seeded in June, and dragged deep. Alfalfa does well seeded in the same way but best results are had with this plant on land cropped a season or two before seeded.

Where clearing must be done with limited means, seeding in stumps is cheapest method of getting the land into crop. Stumps can be removed easiest in early spring or late fall when the ground is moist and less power will then be required. Removing the stumps, if done soon after clearing, is the greatest expense, and should cost, with fairly thick stumps, about \$30 per acre for labor and material, where the stumps are large. As will be noticed the greater part of

this expense, aside from labor, may be deferred until several years pasturage is had from the land and revenue had from grass off the land as well as from wood, poles, etc.

Clearing with donkey or hoisting engine can be done with less than half the expense of power for the actual pulling, but there is greater labor otherwise. This has been found the most economical method where means are available for the use of the engine, and the whole cost will not run more than \$25 to \$35 per acre on pine land. But well informed authorities declare that the first mentioned method where account need not be taken of labor involved, will run to no more than \$25 per acre for clearing; while during the clearing period, valuable grass crops are available.

THE KETTLE FALLS VALLEY



HE most westerly of the valleys of north-eastern Washington lies along the Columbia River from the Kettle Falls—from which it takes its name—to the Spokane River, about 70 miles. It lies in a succession of benches of the Huckleberry Mountain, the lower benches or valley being about 1100 to 1200 feet above sea level and admirably adapted for fruit growing, especially the production of high grade winter apples. It is free from

extreme heat and cold, has long growing seasons with warm days and cool nights, and is ideal for the development of apples of large size, beautiful color and delicious flavor. The valley is also exceptionally adapted for the growing of the more delicate fruits, such as apricots, peaches and nectarines, owing to the absence of late spring frosts. Rainfall is sufficient for ordinary crops and the growing of young trees, especially in the higher benches where there are many fine grain and stock farms, with ample fuel and many small streams from the mountains. Irrigation is supplied by the Fruitland Irrigation Company for the lower valley for twenty miles below the town of Kettle Falls, and by several smaller irrigation projects farther down the river. Economical pumping plants may be established on the river to supply the adjoining lands. This provides against lack of moisture when trees are laden with fruit and heavy demands made for moisture for its proper development.

The soil of the valley is a mixture of clay loam with volcanic ash and decayed granite, containing a high percentage of phosphorus, lime, iron and nitrogen, and these, with the protection afforded by the sheltering hills on both sides of the valley, with the canyon of the river itself affording the necessary air drainage, give the ideal conditions for quantity and quality of fruit. The scenic features of the Kettle Falls Valley with the mighty Columbia and tree clad slopes are an added attraction to the person who looks for beauty as well as utility in a new home.

A glance at the map will show the transportation situation of the entire valley which heretofore has used the railway at Myers Falls and points like Addy and Springdale, but with the completion of the branch line to Peach, boats on the Columbia River will take the produce from the front door of the ranches bordering the river, and with the building of a projected line the length of the valley the last obstacle will be removed to make this the most desirable portion of the entire state for a home and profit. Kettle Falls of the Columbia will eventually be harnessed and electrical power developed to furnish transportation and manufacturing power. It is said that here are 300,000 horsepower entirely undeveloped. Land prices vary from \$150 to \$250 per acre for irrigated and high grade fruit land, and sub-irrigated benchlands at \$25 to \$50 per acre, which are capable of producing abundant crops of grain, hay and alfalfa.



A Ranch Home on the Kootenai River in Bonner County, Idaho. An Ideal Location for Mixed Farming and Dairying

BONNER COUNTY, IDAHO



THE portion of northern Idaho tributary to the Great Northern Railway is extensive forest but near the rivers and railway it has been cut and milled leaving great areas of cut-over lands very similar to the lands of Pend Oreille and Stevens County, Washington, and their development presents about the same problems. The chief valleys are the Kootenai, the Pend Oreille River and Lake, and Priest River and Lake, each with rich alluvial valley lands and volcanic ash and clay benchlands. These valleys are well served with rail transportation and their development to fine dairying, grain and fruit farms awaits only the coming of settlers. The lumbering outfits and sawmills furnish plenty of work at good wages to help out the men of small means in getting started. Logged-off land values are very low, ranging from \$10 to \$25 per acre. Agriculture is in its infancy here and the large mills furnish high priced markets for all that can be produced for many years to come. The land is very productive, and fruits, potatoes, all vegetables, hay and grain show phenomenal yields. Eighteen tons of cabbage and 1000 bushels of the finest and largest potatoes have been grown per acre. Climatic conditions are about as stated for northeast Washington without extremes of heat or cold, destructive storms of hail, wind or lightning, and very pleasant to live in.

Owing to the great extent of forest reserve surrounding the valleys especial attention is called to the opportunities for stock raising in this region.

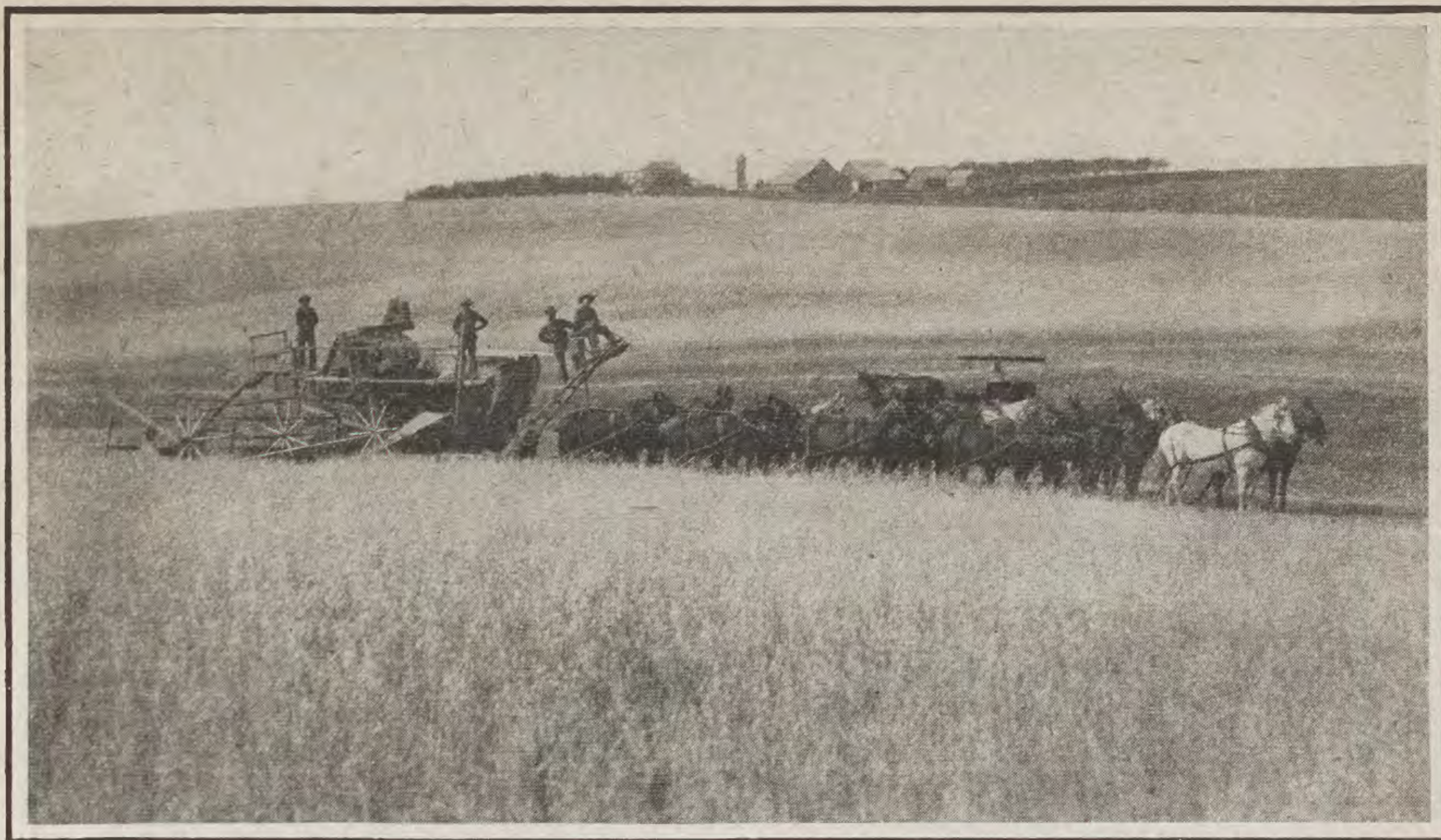
The Kootenai Valley occupies the northeastern corner of the Panhandle and is a beautifully wooded country of mountains, plateaus and valley land, extending east, west and north from Bonners Ferry, a busy little city of 2000 people. 60,000 acres of valley land with probably 40,000 acres of smaller valleys and benches comprise this district.

About one-third of the land is occupied by settlers. The valleys produce much wild hay and the benches fine crops of timothy and clover yielding as much as four tons per acre. Many young orchards are being planted and a great deal of truck farming and

berry growing is already done. Winter Banana, Wealthy, McIntosh Red, Jonathan and Rome Beauty are varieties of apples that have already produced fine quality and yields that give promise of equalling the famous apple districts of the northwest. Here are found some of the lowest priced fruit lands of the entire northwest. The valley should easily produce five times the amount of butter, pork and beef with the abundance of grain and hay that can be raised and range pasture available. In addition to the local markets those of Spokane and all Washington are within a few hours. Potatoes are of exceptional quality and in demand that keeps the price around \$25 to \$40 per ton. Rainfall and sub-surface moisture make irrigation unnecessary for all ordinary crops.

The location of this immense valley between the great Cabinet and Priest River ranges of the Rockies with their snow-capped peaks, the low elevation of the valley, 1760 to 2100 feet, give it a wonderfully even climate. The average monthly temperature for five years is 23.6 degrees above for January and 65.6 degrees for July. The Kootenai Valley and surrounding mountains are famous for big game, ducks, geese and partridge and its streams are full of many varieties of game fish.

Chas. O'Callaghan, residing at Bonners Ferry, Bonner Co., Idaho, has been a very close observer of conditions in that locality for many years past and states the following products grow and thrive splendidly here in the Kootenai Valley: Timothy, clover, alfalfa, oats, wheat, potatoes, cabbage, beets, carrots, parsnips, celery, onions, apples, pears, peaches, prunes, plums, cherries, tomatoes, strawberries and raspberries. The man who is making the most money now is the one who is engaged in agriculture and poultry and dairying business. Dairying and poultry business are big money makers when properly handled. Government land is scarce but land may be bought cheap and on easy terms. A man can start moderately on \$500 to \$1000. Unimproved upland cut over can be bought at \$15 to \$25 per acre. Such land has good soil, level, with water, or water easily gotten. Improved land sells higher according to amount and quality of improvements, \$25 to \$50 per acre.



Harvesting Wheat in the Big Bend Country of Eastern Washington

THE BIG BEND COUNTRY



THE GREAT rolling tableland half encircled by the Big Bend of the Columbia River in east central Washington is known as the Big Bend country and embraces Lincoln, Grant and Douglas counties, with a combined area of 7,000 square miles and population of a little over 35,000. All of Lincoln and Douglas and the northern part of Grant counties is a rolling prairie country. The soil is a volcanic ash, ranging from a few to many feet in depth.

The farms for the most part are improved and have produced large yields of wheat ranging from 25 to 45 bushels per acre and corresponding large yields of oats and barley. The average price of improved farm land ranges from \$30 to \$40 per acre while many of the less improved lands are selling at from \$25 to \$30 per acre. There are quite a number of large tracts in this section controlled by private individuals. These lands can be bought in small units at \$25 to \$40 per acre and on easy terms with long time and low interest. The rainfall varies from 14 to 18 inches. The summers are long and the winters short and comparatively mild. Long seasons for farming operations are enjoyed, and for grain farming alone much larger farms are operated than in grain sections of the east. A great many eastern farmers are now coming into this section and practicing different cropping methods, diversifying their crops and taking a crop off the land each season. Instead of following the old methods of summer fallow they are now putting out alfalfa, corn for silage, and Canadian peas along with the grain crop; keeping a number of cows and a drove of hogs on each farm. The hogs and stock pasture on winter wheat as well as the rich bunch grass pastures and are finished on peas, wheat and barley, with root crops. The cows are fed on hay and alfalfa, and corn for silage, taken from the lands formerly left in summer fallow without crop, which in many cases actually doubles the revenue. In one instance a band of sheep was fed on wheat that would sell for 85 cents per bushel. In 20 days feeding each animal gained 15 pounds and the result was that the wheat, after allowing costs of other feed, care, etc., brought about \$1.57 per bushel.

These Big Bend farms in the past have produced little but wheat, many of the farmers even buying potatoes and butter which might easily be produced at home. The farm lands on a basis of their real producing capacity, if the crops are diversified, are worth not less than \$100 per acre.

State and School Lands

At the date of the latest report, the acreage of state and school lands in these counties was as follows: Lincoln, 56,450; Grant, 85,698; Douglas, 95,503. These lands are subject to sale at public auction to the highest bidder and at not less than \$10 per acre. One-tenth is payable at the time of sale and one-tenth annually with 6% interest on deferred payments. The full amount may be paid at any time and deed obtained. Recent sales of state lands adapted to mixed farming have averaged \$20 to \$25 per acre.

Potato Raising in Douglas County

Douglas County promises to be one of the greatest potato sections of the world. Potatoes here are of superior quality for table use, of good size, with firm but mealy body, and they bake to perfection. Soil and rainfall produce yields without irrigation from 200 to 400 bushels per acre. A good market is available in the Puget Sound cities. Waterville, the county seat of Douglas County, is in the center of this great potato belt. The Waterville Potato Carnival was organized in 1911. The 36 largest potatoes which won the Great Northern cup weighed 101 pounds.

Quincy Valley

The Quincy Valley as at present outlined involves a tract 36 miles by 30 miles in area located in Grant County, Washington, with the town of Quincy as a central point. The studies which have been made of soil conditions and topography by the Washington State Geologist have made it clear that there are about 435,000 acres of irrigable land capable of supporting a population of 100,000 people.



A Young Orchard Near Quincy. The Water for Irrigating is Secured by Pumping From Wells. Considerable Development is Taking Place in the Quincy Country. Land Values \$25 to \$50 Per Acre. Volcanic Ash Soil, Five to Twenty-five Feet Deep. Topography of the Country Almost Perfect for Irrigation. There are About 435,000 Acres in the Quincy District Susceptible of Irrigation.

The altitude of this region varies from 1100 to 1300 feet above sea level and about the only difference in climatic conditions between this valley and the entire Big Bend country is in the amount of rainfall which varies from 10 to 14 inches. The soil ranges from a rich volcanic ash to a fine sandy loam underlaid with a compact subsoil.

Considerable development in the way of irrigation has already taken place in the Quincy Valley. The water is taken from wells ranging from 100 to 300 feet in depth. The United States Geological Survey shows this entire valley to be underlaid with a sheet of water which is found in sufficient quantities for irrigation purposes and apparently inexhaustible. The wells which are now in use range from 10 to 12 inches in diameter and provide sufficient water for irrigating 40 to 80 acres in either alfalfa or fruit trees.

Unimproved land may be purchased from \$25 to \$50 per acre, depending upon the distance from the railway. The experience of those who are already irrigating from wells demonstrates that a well may be put down and equipped with a pump and engine at a cost not to exceed \$40 to \$50 per acre. In view of the low price of land and the nominal cost for supplying water this section offers an unusual opportunity for developing irrigated land. This section is especially adapted to the growing of alfalfa, all the small grains, corn, fruit and vegetables. We especially recommend this section for the growing of alfalfa, hogs and cattle.

One of the recent wells which is in successful operation for irrigating purposes has been installed by Mr. H. D. Otis of Quincy. The well is over 300 feet deep and contains 173 feet of water. The well is 10 inches in diameter, equipped with a 32 horse power oil burning engine and Pomona pump which delivers 310 gallons of water per minute. He uses special gasoline engine oil which costs him about six cents per gallon.

Moses Coulee

Moses Coulee, extending for about twenty miles northeast from the Columbia River in southern Douglas County, is about 20 miles long and one-half to three-fourths miles wide. The bottom of the coulee is practically level and soil is composed of silt and volcanic ash washed from surrounding highlands. The castellated walls of basalt standing several hundred feet in perpendicular walls on each side give protection from climatic disturbances. A large portion of the coulee has already been set to fruit trees.

Mr. A. L. Rogers of Waterville, Washington, writing of this district, says—

"I can truthfully say that Moses Coulee, lying as it does in the deep north and south valley, sheltered from the cold northwest winds, is impervious to the early and late frosts. The great rock walls of the coulee absorb the rays of the sun and modify the temperature both early and late in the season. The soil is composed chiefly of decomposed basaltic rock, the same as the north shores of the Mediterranean Sea, which has been farmed for thousands of years. It is also blended with silt and vegetable mold washed from the high plateau. The water supply can be easily and cheaply developed."

Chas. W. Bethel, Harrington, Lincoln County, Wash., writes—

"Came from Quincy, Ill., in 1883. I borrowed money to take my family on my homestead. In 1912 had 1600 acres in crop. Wheat went 23 bushels, barley 40 and oats 50. 90 acres in hay yielded two and one-quarter tons to the acre. I consider my holdings today worth \$140,000. \$800 will start a renter on 160 acres. 15% of our land is rented, each renter farming 640 acres. We land owners want to reduce this to 320 acres each and have the renter do his own work. Our nearest creamery is 50 miles away, at Spokane. Butter-fat is bought by our local merchants and shipped to Spokane. Never have been sick."

Lewtas Bros., Kennewick, Benton County, Wash., writes—

"We came here in 1907 from North Billerica, Mass., and bought twenty acres. We have made a distinct success in this locality with strawberries, making from \$300 to \$450 per acre, but have changed to asparagus which makes from \$1000 to \$1500 per acre. Successes are numerous. We prefer this place to any we have been in for health."

E. J. Carroll, Mansfield, Douglas County, Wash., writes—

"I came here in 1901 from Minnesota, took a homestead and later leased and bought state land. I had nothing at first but worked for wages and hired plowing done. We now have 840 acres, 20 horses, 6 Jersey cows and fifty Poland China hogs. I raise all my own small grain and vegetables in abundance, besides have a good farm orchard with no irrigation required. Have always raised 20 to 30 acres of corn which yields 20 to 30 bushels per acre. I think in the near future every ranch will have a bunch of cows as dairying pays well. A renter or man of small means can do well here. State lands can be leased or bought. Wages are good with a big demand for farm help. Improved farms here \$20 to \$40 per acre. I raised 800 acres of wheat, 23 bushels per acre; barley, 40 acres, 40 bushels per acre; corn, 25 acres, 20 bushels; potatoes, one acre, 250 bushels. Climate is ideal and both myself and family have the best of health."

Mr. W. M. Horsley, Ephrata, Grant County, Wash., writes—

"I came here about seven years ago from Iowa and am farming a section of land which I bought from the state. Have given my time mostly to wheat raising but am now turning to stock raising and dry land alfalfa. We have always raised good vegetables without irrigation. Grain land is worth \$20 to \$34 per acre and plenty of state land for sale. A great many wells are now being put down and used successfully for irrigation. This land with water right is worth \$100 to \$200 per acre for fruit growing and alfalfa."



A Properly Cared For Seven Year Old Orchard in the Wenatchee Valley

WENATCHEE VALLEY

AND UPPER COLUMBIA RIVER COUNTRY

ENTIAT and METHOW VALLEYS, LAKE CHELAN COUNTRY



THE LOW VALLEYS along the Columbia River and tributary streams that drain the eastern slope of the Cascade Mountains are particularly adapted to fruit growing. These valleys range from one to three miles in width and vary in length from five to thirty miles or more. In these valleys the combination of altitude, soil, climate and water, with the ample protection of the snow capped mountains of the Cascade Range produces a condition almost unequalled for the growing of high grade fruit.

The Wenatchee Valley has witnessed great development in the production of fruit on account of its advantageous location on the railway, while many of the other valleys of equal merit are only at this time being developed. The soil of these different valleys is practically the same, being of a light texture, composed of a sedimentary sandy loam and volcanic ash, decomposed granite, free iron and a high percentage of potash and phosphates—chemicals that in other states must be purchased at a great expense to the growers. The climate, soil and water are responsible for the perfect maturity of the fruit and regular yields year after year. The northern latitude gives long days of sunshine which draws the food laden sap from the earth and evaporates the surplus water. The surrounding mountains and snow capped peaks hold the snows of winter, preventing early budding and damage from late spring frosts. The cool breezes from the snow capped peaks cool the summer nights and contribute to tree growth and development of size of the fruit. The mountain peaks catch the early fall snows of higher altitude, throwing into the valley's autumn nights a frost laden breeze which oxidizes but does not freeze the coloring matter of the fruit skins, developing the rich red and delicate tints of the smooth skinned fruits. The gentle slopes of the valleys and their high bordering

walls of mountains provide the necessary air drainage so essential in preventing late spring frosts.

WATER: The snow capped peaks and forest covered slopes of the Cascade Range furnish, through numerous lakes and streams, an abundant supply of water for irrigation. The usual method of irrigating is by gravity although some small projects are irrigated by pumping from lakes or rivers. There are a number of methods of handling these irrigation systems. Some are constructed by private corporations, some by the United States Government and some under the State District Irrigating Law. In any event, the water rights are sold to the land owners, title to which thereafter is inseparable from the land. The annual upkeep of the irrigating works is usually provided for by an assessment against the water users varying from \$1.50 to \$3.00 per acre, according to the amount necessary for upkeep of canal. The regularity of crops, the enormous production and the high quality and size of the fruit in these irrigated districts are due in a large measure to the perfect control of the water supply. This furnishes sufficient moisture to continue the development of the tree as well as to mature the crop, resulting in fruit of large size, and enabling the fruit tree to throw out fruit spurs for the coming year without interference on account of lack of moisture.

These different valleys produce to the greatest perfection all the fruits of the temperate zone. The fruit growers, however, have concentrated their efforts largely on the production of the big red apple; the natural conditions being especially adapted to the successful growing of such high grade and well known varieties as Spitzenbergs, Winesap, Stayman Winesap, Delicious, Jonathan, Arkansas Black and Rome Beauty. Other standard varieties which reach great perfection on account of the delicate, clear, transparent skin, are the White Winter Banana, White Winter Pearmain, Yellow Newtown Pippin and Grimes Golden. In addition to the varieties enumerated



Birds-Eye View of the Wenatchee Valley—Looking North. The Home of "The Big Red Apple". Wenatchee is the Gateway to the Entiat Valley, Lake Chelan, Methow and Okanogan Valleys. The Great Northern Ry. is Constructing a Branch Line, Wenatchee to Oroville, 133 Miles North, at a Cost of Several Millions of Dollars. This Line Will Be Completed in the Spring of 1914, and Provides Excellent Transportation Facilities for an Enormous Territory. There Are More than 110,000 Acres of High Grade Fruit and Alfalfa Land, Either under Irrigation or Susceptible of Irrigation in the Territory Served by This Line. In Addition to This Many Millions of Acres of Land Adapted to General Farming and Stock Raising. This is Truly a Land Teeming with Opportunities for the Homeseeker

practically every variety of apple can be successfully grown. These different valleys also excel in the production of peaches, pears, sweet cherries, apricots, plums, grapes, strawberries and all small fruits and vegetables.

The man who is growing his own orchard will find it profitable to use apricots, pears, or early bearing varieties of apples as fillers in his orchard, or to grow vegetables or strawberries, in order to produce revenue before his apples come into bearing. In many cases these crops grown between the rows have entirely paid for the land, buildings, and working equipment of the grower before his permanent orchard has come into bearing. The age at which young apple trees come into bearing depends largely upon the varieties, ranging from four to six years. Peaches and other soft fruits come into bearing the third summer.

In addition to the natural advantages strict business methods are employed by the growers and every means of science and experience which have developed are used to the best possible advantage. Rigid state laws as to the care of orchards to prevent disease are enforced by the state horticulturist, county inspectors and their assistants.

The Future of Apple Growing in the Northwest

In view of the large acreages which are being planted and are to be planted we are often asked as to the future of this industry. It is only necessary to call attention to the irregular annual yields of eastern orchards which have gradually decreased in yearly production, also to a loss of 12,500,000 trees in three of the leading apple states of the east, between 1900 and 1910 (United States Census reports). In order to offset this decrease in number of trees alone, over 200,000 acres of new trees must be provided.

In view of the natural advantages and resulting high quality, attractiveness, regular crops and enormous yields, Washington state must become one of the leading states in apple production. With the passing of the haphazard method of distribution of box apples and a systematic organization of distribution, great increase in consumption as well as economy in distribution will result.

It is not possible in this limited space to call attention to the increased demand for the Washington apple, except briefly. In 1913 Australia has taken over 250 cars of northwest box apples while two years ago the northwest box apple was practically unheard of in that market. A corresponding increase is to be noted in all

of the European markets; where a few boxes were marketed five years ago, thousands of boxes are now sold. One of the northwest selling organizations recently placed an order for 1000 cars ranging in price from \$1.53 to \$2.00 per box f. o. b. shipping point.

An estimation of the possibilities of further expansion of the apple market under systematic and proper organization is best illustrated by what has taken place in the orange industry. Only a few years ago the orange growers of California were threatened with extinction on account of not being able to market a few thousand carloads of oranges each year. At the present time under proper organization they are selling twenty times as many oranges at a greater profit than they were able to market their small production of a few years before.

A thorough study of the apple growing industry cannot fail to convince any unbiased person that the natural advantages of these districts such as regular yields and high quality of fruit insures the permanency of this industry in these favored districts.

Wenatchee Valley

The valley of the Wenatchee is situated in the exact center of the state. It is bisected by the Great Northern Railway from one

end to the other, a distance of about 35 miles. It varies from one to three miles in width. There are approximately 28,000 acres under irrigation which include several thousand acres on the east side of the Columbia River. The altitude of the irrigated lands ranges from seven hundred to nine hundred feet. Prior to 1900 there had been very little development in the valley outside of private irrigation ditches. Today it is practically one vast orchard about one-half of which is in bearing. Land values range from \$350 to \$500 per acre for unimproved land with water right. Improved orchards from \$1000 to \$2000 per acre, depending upon the age of the trees and improvements. The population of the valley is about 15,000, less than half of whom live in the towns. The average sized ranch is about ten acres, resulting in a dense population throughout the valley. The result is—near neighbors, electric lights, telephones, water system, mail delivery, good schools, and, in fact, practically the comforts of the city with none of its disadvantages.

The annual output of fruit from the Wenatchee Valley is increasing at the rate of five hundred cars per year. In 1912 the output was about four thousand cars and it will continue to increase from year to year as the young fruit trees come into bearing. For 1913 no definite returns as yet are available but the estimated value of the fruit crop is about three millions of dollars.



Irrigation Project on the Shore of Lake Chelan. This Project Comprises About Seven Thousand Acres and More Than One Million Dollars Has Already Been Expended in Its Development

Wenatchee

Wenatchee, the leading city of the valley, has a population of about 5,000, with up-to-date business houses, beautiful homes, paved streets, etc. Wenatchee is the gateway to the north central Washington country and promises to be the largest city in central Washington.

Cashmere

Cashmere, with about 700 people, is a well built city of beautiful homes and modern business buildings. It is an extensive shipping point for the surrounding country.

Leavenworth

At the head of the Wenatchee Valley, has a population of over 1600 people, 500 acres of bearing orchards, logging and lumbering business with an annual payroll of over \$500,000, and railway terminal and division payroll of \$300,000 per annum. Logged-off lands tributary to Leavenworth form a great part of the undeveloped lands in this district. These logged-off lands will become valuable for hay and dairying. They are low in price and require chiefly labor to make them producing farms. Hay seldom sells under \$15.00 per ton and butter about 40 cents per pound at Leavenworth.

Other towns of the valley are Malaga, Monitor, Dryden and Peshastin; small in population, but providing shipping facilities and trading centers for the surrounding country.

The following sworn statement from Cashmere is typical of the progress made in the development of the fruit growing industry in this valley:

"I came to Washington in 1910 from Massachusetts, having been engaged in mercantile business in that state and New York theretofore. I bought twenty acres for \$34,000, five acres in ten year old trees, fourteen acres in four year olds and one acre set since 1910. From the five acres I sold 4500 standard 50-pound boxes of apples which netted \$1.50 per box at the warehouse, in each season 1910 and 1911. During the summer of 1911, I sold ten acres of the ranch for \$25,000, and consider the remaining ten acres of equal value. From nine acres of four year old trees I picked 1000 boxes. From 100 trees I picked 1400 boxes. This 20-acre ranch is a part of the 160 acre homestead of a Mr. Borguardt which J. C. Paton purchased at \$12 per acre in 1896. The greater portion of it is owned by the Paton family today and is valued at \$300,000. My twenty acres were purchased by E. C. Long in 1905 for \$3,000 and sold to J. C. Faskin in 1907, for \$11,500, who sold to me in 1910."

Lake Wenatchee

Lake Wenatchee is within easy reach of the entire valley and is one of the scenic features of this section of the country. The lake and streams are full of trout and small and large game is found in abundance affording a delightful spot for a few days or weeks camping.

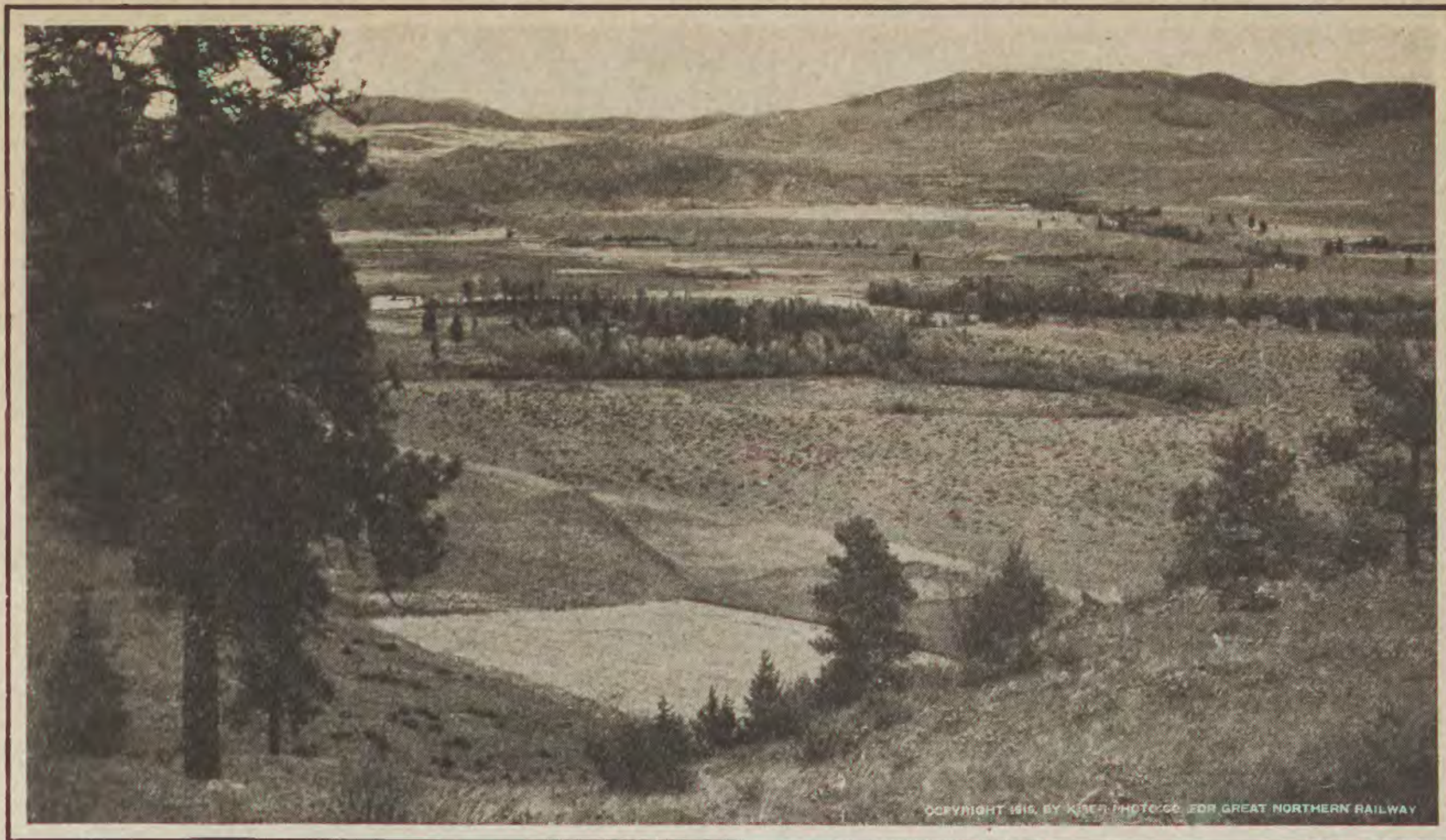
The Entiat Valley

The Entiat Valley is located twenty miles north of Wenatchee and on the new railway line. Its soil and climate resemble that of the Wenatchee Valley. Special attention has been given to fruit growing. Its fruit lands extend for about fifteen miles up the valley. The upper valley is famous for its timothy and alfalfa meadows and bunch grass range which during the summer months pasture thousands of sheep. A sawmill with a daily capacity of 25,000 feet is operated in the valley which is the only outlet for about two million feet of standing timber, chiefly pine. This section offers special opportunities for fruit growing, dairying and stock raising.

The Lake Chelan Country

The Lake Chelan country is 40 miles north of Wenatchee on the new Washington & Great Northern Railway which is to be completed in 1914. The development of this wonderful region has been more or less retarded on account of the lack of transportation facilities. Lake Chelan is about 60 miles long, one to three miles wide and 1600 feet deep and it exerts a moderating influence on the climate of the surrounding country. The average length of season free from frost is six months and nine days.

The lake occupies a narrow canyon and nestles among the snow capped peaks of the Cascade Range, with forest-clad ridges for almost its entire length. At the south end of the lake and at many points along the lower half of the lake the land rises in gentle slopes from the water's edge where already many summer homes have been built. The even and delightful climate and scenic attractions and wonderful variety of resources of this entire section are sure to attract many home builders with the completion of this new railway line. There are estimated to be about 12,000 acres of irrigable land on the gentle slopes bordering the lake, with about 15,000 acres additional on the higher benches and valleys surrounding which are suitable for mixed farming, without irrigation. Beyond these, bunch grass hills and great pine forests afford free or cheap grass for stock raising, and the timber affords cheap fuel and building material which are no small part of the resources of the valley. The lower valley lands are less than one-half developed and range in price from \$200 to \$500 per acre with water right. From five to ten acres are required for a comfortable and profitable home. The higher benchlands of the valley range in value from \$25 to \$100 per acre.



Methow Valley, Showing Undeveloped Land Bordering the Methow River, Which Is Being Rapidly Transformed into Beautiful Orchards and Homes. This Section Offers Unusual Opportunities for Fruit Growing and Diversified Farming as Enormous Crops of Alfalfa Are Produced under Irrigation, while the Surrounding Hills Provide Free Pasture for the Settlers' Stock for a Great Portion of the Year

Lakeside and Chelan

The twin cities at the foot of the lake are the principal cities and have a combined population of about one thousand. There is a rural population estimated to be about 1200 in the surrounding country. All of the modern conveniences are enjoyed by the residents of these two cities—good schools and churches, modern and substantial business places, well laid out streets, with a beautiful boulevard through the orchard districts overlooking the lake. Water power plants supply power for light and manufacturing purposes and water for irrigation purposes in the city. With all these advantages the Chelan district should not be overlooked by anyone desiring a comfortable home.

Methow Valley

About sixty miles north of Wenatchee is the confluence of the Methow and Columbia rivers. Pateros is the present railway station and gateway to the Methow Valley. The Methow River for forty miles has an average fall of about 25 feet to the mile with sites for power development to meet transportation and industrial needs of the valley. At a point about 12 miles above Pateros the lower valley widens and for thirty miles, to Winthrop, varies from one to three miles in width.

It has over 20,000 acres of irrigable lands supplied with water from the Methow and Twisp Rivers. Beyond Winthrop are the pine forests of the Cascade Mountains, furnishing millions of feet of lumber for building needs of the valley as well as for export to the outside world. About 3000 acres have been set to apple orchards in the valley and there are about 350 acres of old bearing orchards in the valley which have never had a failure of fruit. The lands of the valley are well adapted to a great variety of products, as well as fruit, and on these irrigated farms are found some of the finest fields of alfalfa in the entire state bearing yields from six tons to ten tons per annum. Timothy, clover, corn, oats, barley, potatoes and all vegetables are other products in which this region excels, and every farmyard has a good orchard with an abundance of small fruits and berries. Owing to the immense yields of feed and the distance to transportation heretofore, dairying has been the leading pursuit aside from stock growing. There are four creameries in the valley turning out over 50,000 pounds of butter per annum.

• The benchlands bordering the Okanogan, Methow and Chelan valleys are dotted with dairy and stock farms, raising hay and grain.

Corn and alfalfa, as well as other grains, do well on these benchlands and at the higher levels where rainfall is greater, no irrigation is required. Land values range from \$25 to \$50 per acre.

A visit to one of these dairy and stock ranches in the higher lands of north central Washington is a revelation of their wonderful timothy, clover and alfalfa crops which are fed during the winter to hundreds of head of sheep and cattle which find feed from eight to nine months in the open range of higher and rough lands and forest. Owing to their distance from market it has been necessary to feed everything grown on the farm to animals which could be driven to the railway and market. Here are what appear to be small patches of tilled land on these mountain farms forming the nucleus for the production of from \$1000 to \$5000 worth of stock each year.

The population of the valley is estimated at about 2000, about one-third of whom reside in the towns of Winthrop, Twisp, Methow and Pateros. With the completion of the railway to Pateros the marketing facilities for this valley will be greatly improved. The opportunities offered for new settlers in this beautiful valley will be fully appreciated when it is considered that there are at the present time sufficient land and other resources to support a population of at least 15,000. Other lands are sold at from \$200 to \$250 per acre with water right. Irrigated land suitable for dairying, stock raising and mixed farming from \$75 to \$150 per acre. The highland bench farms from \$25 to \$50 per acre.

The Bridgeport Country

The general description of the Okanogan Valley will apply to the natural and physical features of the Bridgeport section. It lies across the Columbia and a few miles upstream from Brewster and the mouth of the Okanogan River. It is claimed there are over 10,000 acres of irrigable lands in the small valley and surrounding low benches. But a small portion is furnished water at this time. The domestic water and water for irrigation of a limited area about the town of Bridgeport is secured by gravity from a large spring and Foster Creek through a well-built system and about 3200 acres are covered by the largest pumping plant in the state taking water from the Columbia. This latter is a private project and the land all set to fruit two to four years old. Land without water but within reasonable pumping lift from the river can here be had at low figures varying according to lift from \$50 to \$150 per acre. The town has a population of 450 people and is within easy reach by stage and ferry of the new railway.



Okanogan Valley Showing the Bench Lands on Either Side of the Okanogan River Which Are Susceptible of Irrigation. The Okanogan Country Offers Exceptional Advantages for Settlers Who Wish to Secure a Small Tract of Irrigated Land and Carry on Diversified Farming. The Surrounding Hills Afford Ample Free Pasture for a Great Number of Stock for at Least Nine Months of the Year

THE OKANOGAN VALLEY



THE Okanogan Valley from Brewster to the British Columbia line is about 70 miles in length. There are in this district about 20,000 acres of irrigated land. Other irrigation projects in various stages of development add 38,215 acres making a total of approximately 60,000 acres of high grade fruit and alfalfa land and making the Okanogan Valley one of the most important irrigated sections in the entire state. The Okanogan Valley is divided into a number of sections by the highlands rising abruptly from the Okanogan River at different points. The distinct division of the valley centers first about Brewster. There are about 2000 acres tributary to Brewster now under irrigation, about all set to fruit, with over 19,000 acres of benchland extending northward along the Okanogan which will eventually be placed under irrigation. Surveys have already been made for taking water from the Methow River for this purpose.

The second division centers about Okanogan, Omak and Riverside, and includes the United States Reclamation Project which covers 10,075 acres, about half of which is already under cultivation. Other irrigated lands in this vicinity embrace about 5,500 additional acres, which is under private management in small projects.

The third division centers about Tonasket and embraces about 3000 acres bordering the Okanogan River, receiving water through pumping plants from the river and by gravity from small creeks.

WHITESTONE IRRIGATION PROJECT: This project embraces about 9000 acres surrounding Whitestone and Spectacle Lakes, about five miles west from Tonasket on the new railroad, and water will be obtained from the Sinlahekin River.

The fourth division centers around Oroville. There are already several thousand acres of land under irrigation by pumping and private projects in the vicinity of Oroville which are in private hands and in process of development.

THE EAST AND WEST OKANOGAN DISTRICT contemplates taking water from the Samilkameen River and will irrigate 5900 acres under the east side project and 4815 under the west side project, extending

south on both sides of the Okanogan River to the town of Tonasket. The east and west Okanogan districts are organized under State Irrigation District Laws. The preliminary surveys and estimate of costs are now being made and construction work should be started in the near future.

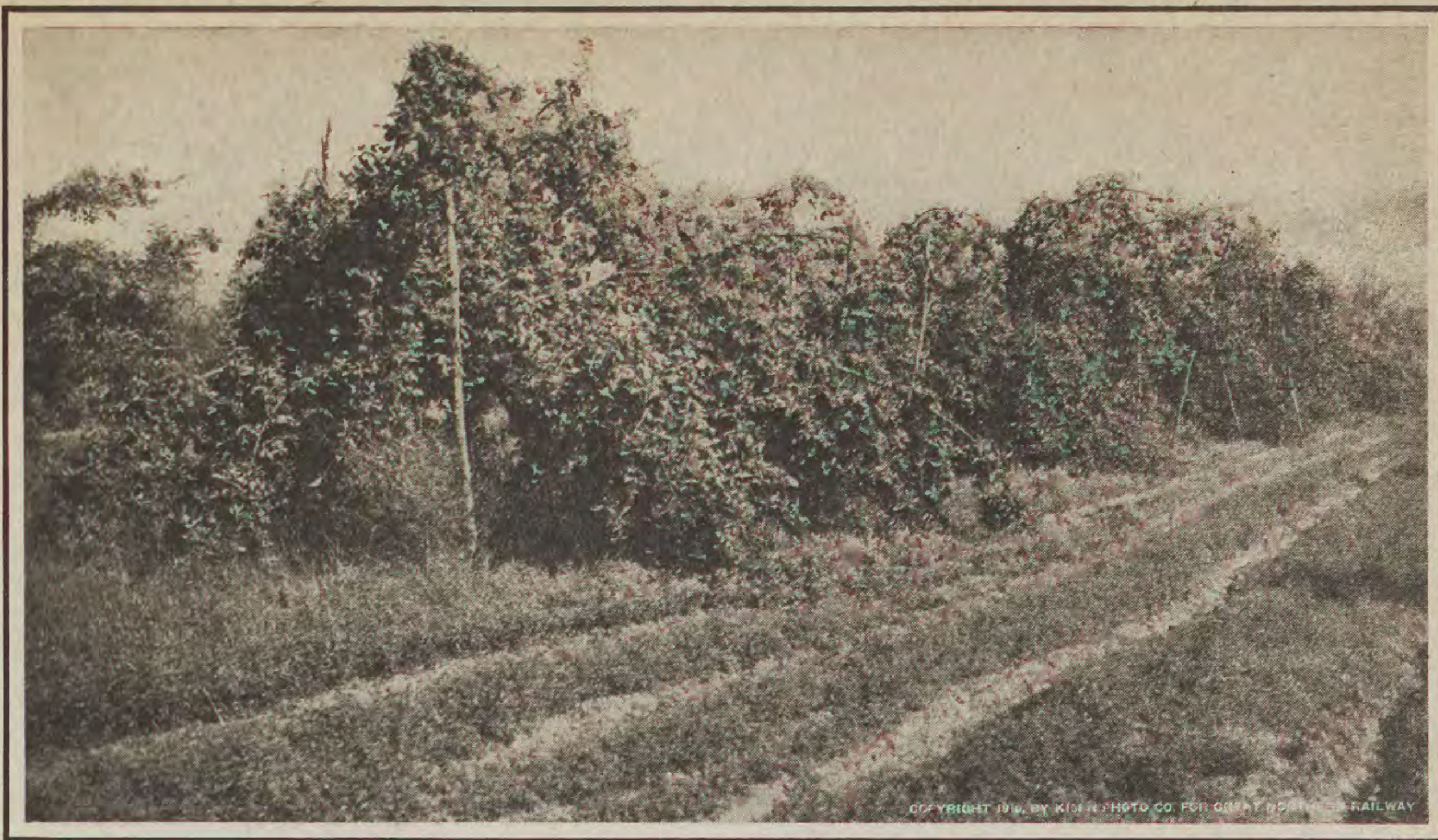
The land bordering the Okanogan River from Brewster to Oroville lies in a series of gently sloping benches or terraces in altitudes of 750 and 1550 feet, sloping back from the river and smaller streams. The lower benches are covered with a heavy growth of sage brush while the upper benches have a good growth of bunch grass. These benches are generally regular and require but little preparation for irrigation and the intervening terraces being more or less steep are well adapted for orchards and small fruits.

The distinctive features of the Okanogan climate are the results of its nearness to the Pacific and the Japan Current giving it a general mildness, while the high barrier of the mountains prevents melting of the winter snows by chinook winds. As snow forms the principal precipitation it remains upon the ground until late spring holding back tender vegetation growth until danger of frost has passed and the gradual thawing allows the ground to absorb this moisture, starting all growth rapidly with the warm spring days which continues through the long warm summer days of almost continuous sunshine.

There are, scattered throughout the entire length of this Okanogan Valley, a number of old orchards. The Pogue Orchard at Omak and "Okanogan Smith" Orchard at Oroville contain bearing fruit trees ranging from 25 to 50 years of age with a reputation of never failing crops of perfect apples, peaches, cherries and berries.

The development of the fruit industry in the Okanogan district has been more or less retarded on account of the lack of transportation facilities and it has been only within the past four or five years that the planting of orchards has been carried on extensively. The showing made by the old orchards as well as young orchards at the National Apple Show and other expositions of high grade fruit are sufficient to convince the most critical observer that this district is second to none in crop yields and the high quality of their fruit.

Land values range from \$200 to \$250 per acre with water right, under projects now in actual operation, to \$40 to \$100 per acre under



Dr. Pogue's Orchard Near Omak. Dr. Pogue Planted an Orchard of Apples, Peaches, Pears, Apricots and Cherries Twenty Years Ago. The History of His Orchard is One of the Most Remarkable in Horticultural Records. He Has Never Missed a Crop Since His Trees Came into Bearing

proposed projects, without water. Water will cost \$50 to \$100 additional. There is no question but that throughout this territory the Wenatchee conditions of soil, climate, length of season and control of water supply prevail.

The distinguishing feature of this Okanogan district is to be found in the fact that it is not only adapted to the production of high grade fruits but it is also exceptionally adapted to diversified farming. The amount of irrigable land is limited in extent, lying in a long narrow strip along the Okanogan River. The country surrounding this narrow strip of land is usually a mountainous and partly timbered area, a portion of which is included in the National Forest Reserves and affords the finest kind of grazing. A very profitable form of diversified farming would consist in the raising of hogs and cattle for the market, grazing the cattle upon the public range, except during the winter months when they could be fed upon the home ranches. The range is so largely in excess of the irrigable area that the only limit to this business would be in the amount of stock that could be wintered from the produce of the ranches. On account of this unexcelled opportunity for free range and the possibility of producing from six to eight tons of alfalfa per acre on the irrigated land it is peculiarly adapted to diversified farming. The value of irrigated land under these conditions is not necessarily confined to the actual acreage under irrigation but includes the additional value of the free range available nearby. With the completion of the new Washington & Great Northern Ry. from Wenatchee to Oroville this entire section becomes immediately tributary to good markets.

Mr. R. P. Wright, Chelan, Chelan County, Wash., writes:

"I came from Ord, Nebraska, in 1899 with my family of eleven and \$450 in cash. Bought 18 acres of wild land which is now all in fruit trees and sold as high as \$4000 worth of fruit in one year. Have 13 acres in full bearing, balance in young trees and alfalfa. From 192 trees of Rome Beauty ten years old I picked 3060 boxes in 1910. Had over 4000 boxes from my orchard in 1912. With the completion of the new railroad I know of no country where there is as good a chance for a man of small means to get a home. All kinds of farm produce sell well, including hogs, cattle and poultry. There is plenty of work and good wages. Climate is the healthfullest in the world."

V. W. Clough, Brewster, Okanogan County, Wash., writes—

"Came from Aurora, Ill., in 1911. I consider this the best place I ever saw for raising fruit, general farming and stock raising. This spot which is called 'Brewster Flats' has old Illinois beat forty ways. We can raise everything here in large quantities and of better quality than Illinois except corn, and we do raise some corn. I have been a farmer for forty years in the eastern states and to my mind this is the garden spot of the world. It is an ideal climate both summer and winter. Have no mud at any time of the year. Wages are good and if a man is a hustler there is no reason why he cannot get a start here with but little means. Fruit land is selling from \$100 to \$250 per acre. I consider this country the poor man's paradise."

M. D. Thomas, Okanogan, Okanogan County, Wash., writes:

"I came from La Crosse, Wis., in 1906. Have engaged mostly in raising alfalfa and stock but am now growing 40 acres of apple orchard. We raise the very largest and best of fruits. Chances for rich or poor and plenty of opportunities. Climate is fine. About two or three months winter and delightful spring, summer and fall. Am sure this is one of the coming valleys of the west."

J. O. Burdett, Malott, Okanogan County, Wash., writes:

"I came from Marion, Ohio, in 1902. Bought 192 acres and took a homestead of 160 acres. Grain land sells \$20 to \$50 per acre. Irrigated land \$75 to \$300. Any of this land will grow grain, fruit and vegetables. Our nearest creamery is eight miles and cannot supply the local demand. Good opportunities for creamery and dairy prospects good. The climate is ideal. We have perfect health."

M. E. Wilkinson, Antwine, Okanogan County, Wash., writes—

"I came here in 1905 from Detroit, Michigan. Fruit and vegetables do well. The fruit is of the very best color and quality. Chances for a poor man to get a home are much better than in the east, as land may be purchased at very reasonable prices or rented. Our experience has been that the first settlers of this part of the country have had a harder time to get started than the ones coming in now will have. The newcomers can profit by our experience and will not have the hardships to contend with that we had. Irrigated land sells \$100 to \$150 per acre, non-irrigated \$20 to \$35. Opportunities good for dairying. Have a creamery seven miles from here and wagons collect the cream. My health is much better here and there is very little sickness."

F. L. Smith, Oroville, Okanogan County, Wash., writes—

"I came from Evanston, Ill., nine years ago and located four miles east of Oroville. Have ten acres in orchard five years old, mostly Winesaps and Rome Beauties. I let two trees of each variety bear last year, their fourth year, and got seven boxes off the four trees. Two of them had two boxes per tree. Have several seven year old peach trees that brought \$12.00 per tree in 1910. Believe there will be at least five boxes of peaches per tree this year."

Geo. Pratt, Molson, Okanogan County, Wash., writes—

"I came here in 1908 from Perkins, Okla. Took up a homestead. Never saw the time that we could not get work in the neighborhood at good wages. Have always raised good crops. Wheat went 35, oats 82, barley 45, potatoes 200 bushels per acre. This is a good dairy and stock country. We have a creamery in Molson. Do not need irrigation to raise crops. Land worth \$25 to \$45 per acre. Chances still good for people of moderate means, as land is cheap and plenty of outside work. Free range for stock. Fuel and water plentiful and building material cheap."

W. C. Bowen, Keremeos, B. C., writes—

"Came from Alberta in 1912. Bought an orchard already planted—seven year old trees. I have had splendid success with apples, peaches and all small fruits. Alfalfa can be raised between the fruit trees, or other feed for cows, horses, pigs, chickens, etc. Eggs bring 50 cents per dozen, butter 40 cents all summer. Land sells at \$150 per acre. Splendid opportunities for dairying. Climate ideal."

J. I. Pogue, Omak, Okanogan County, Wash., writes—

"I settled here in 1887, formerly lived in Illinois and Iowa. Took a homestead and am still residing on it. It is a part of the Government Okanogan Irrigation Project. I brought with me a few head of cattle and horses and raise alfalfa hay with the aid of irrigation for winter feeding, which usually lasts about three months. During the other nine months the stock lives on bunch grass ranges. 20 years ago I planted an orchard of apples, peaches, pears, apricots and cherries, and from my observation here and other fruit sections believe the Okanogan has no superior. In the higher ranges where orcharding is not so successful, dairying is quite profitable."



Growing Berries Between Rows of Young Trees Near White Salmon

NEW WASHINGTON & GREAT NORTHERN RY., *Wenatchee to Oroville*

THE NEW WASHINGTON & GREAT NORTHERN RAILWAY extends from Wenatchee to Oroville, 133 miles. Leaving Wenatchee, it follows the west bank of the Columbia River to Brewster and thence the Okanogan to Oroville. A portion of this line extending south from Oroville is already completed. Indications are the entire line will be in operation in the spring of 1914. With the completion of this line the immense territory of north central Washington, embracing Chelan and Okanogan Counties and the south half of the Colville Reservation, over 8000 square miles of territory, is for the first time brought in immediate touch with the outside world. In the past this territory has been served by uncertain river transportation. It is estimated that at least 110,000 acres of land, a portion of which is already being irrigated and the remainder susceptible of irrigation and preliminary surveys of irrigation projects with abundance of water for irrigating, will be served by the building of this new line. This land is capable of producing the highest grade apples and other fruits adapted to the north temperate zone that can be grown anywhere in the world.

This district has the additional advantage of combining most unusual advantages for diversified farming and stock growing. The soil and climate are especially adapted to the production of enormous crops of alfalfa and all root crops, and the surrounding hills supply an abundance of range for stock nine months in the year. This territory lying between Wenatchee and Oroville promises within a few years to be one of the greatest in the production of high grade fruits, hogs, cattle and sheep.

One of the most attractive features of home building in this section will be that under the irrigation project the size of the farms will range from 10 to 20 acres, making ideal country communities with all the natural advantages and conveniences of city life.

We urge those looking for a home to investigate this section as the completion of this railway line will add a great impetus to the development which will take place within the next few years.

In considering the price of lands under irrigation consideration should be given to the fact that it is not necessary to have 160 or 80 acres of land in this district in order to make a living as is often the case in eastern states. Five, ten and twenty acres is the usual size of these irrigated tracts which with proper care and cultivation will produce as great returns as 160 acres of farm land in the eastern states. If you would benefit by the great development which is going to take place along this new line you should investigate now.

Mr. G. E. Dodson, Molson, Okanogan County, Wash., writes:

"I came here from Fullerton, Neb. Have raised grain and stock all my life and this is the best place we have struck. We feed the stock for about three months during the winter and the rest of the time they are on the ranges. I own 100 head of cattle and 16 horses. Land values at \$25 to \$40 per acre. We have a creamery in our neighborhood. Never have had better health in my life. Instead of paying bills for a doctor we pay them to the groceryman."

Chas. S. Lewis, Oroville, Okanogan County, Wash., writes—

"Came from Owosso, Mich., ten years ago. For the past three years have been in the dairy business. Now have 20 head of milk cows. There is a creamery at Oroville and I believe dairying is the business that will make us all independent. It is the healthfullest climate I have ever experienced."

Mr. J. H. Green, Synarep, Okanogan County, Wash., writes—

"I came from Chico, Cal., in 1903. Have raised good crops of wheat and oats as well as some corn and all kinds of vegetables. I think this is the best country I ever saw for a poor man to get a start. Land may be rented cheap. If a man wants to own a home this is the place to get it. With \$1000 a man can get a good start. This is the finest bunch grass country I have ever seen. We have a creamery and good chances for dairying and are more healthy here than any place we have ever lived."

Erwin Truax, Oroville, Okanogan County, Wash., writes—

"I came from Eddyville, Iowa, in May, 1903, and bought 250 acres of land. Can raise almost anything except tropical fruit. Corn, wheat, oats, potatoes, peas, onions, beans, melons, etc. Can get three crops of alfalfa hay, two to three tons to the cutting. Grain land on the benches sells from \$25 to \$40 per acre according to location and improvements. Fruit and vegetable land with water right \$200 to \$300 per acre. Same quality of land under the proposed ditch can be purchased from \$100 to \$200 per acre. There are plenty of good ranches for rent but I advise people to buy land. An ordinary family can make a good living on five acres of irrigated land raising vegetables and poultry. A newcomer with \$1000 to \$3000 can get a good start. Splendid climate, very little sickness, pure air, good water, cool nights. We always expect to make our home in this section. Have a good creamery in our neighborhood and splendid opportunities for dairying."



Harvesting Wheat Near Goldendale. This District Is Rapidly Being Transformed from an Exclusive Grain Growing District to Diversified Farming and Fruit Growing

South Central Washington



THESE two counties cover a wide slope between the Yakima and Columbia rivers rising from the Columbia at first abruptly, then in gentle slopes of grain and mixed farming lands of the Horse Heaven and Goldendale districts. Along the Columbia and at its junction with the Yakima are the Pasco and Kennewick valley lands which are covered with irrigation projects as high as 350 feet above the river.

The irrigation projects about Kennewick, Hover and Finley cover about 18,000 acres of which 12,000 are under gravity systems and to about 6000 acres the water is delivered by pumping plant. About Pasco, across the Columbia, about 7000 acres are covered by pumping plant. In all these districts land values with water right vary from \$125 to \$500 per acre, according to location and quality.

Early opening of spring, due to low altitude and protection of these valleys, makes growing of small fruits and vegetables especially profitable. The long seasons produce from three to four heavy crops of alfalfa, and dairying, cattle and hog raising are growing fast in favor. Many small ranches are already producing large quantities of strawberries and early vegetables, such as radishes, lettuce, asparagus, etc., for the markets of Spokane, Portland, Seattle and Tacoma, making delivery as much as a month in advance of any other section within reach of these markets. At Longview, Coolidge, Patterson and Whitcomb are limited areas of valley land suitable for irrigation and intensified cultivation for fruits, etc.

The highlands of these counties vary from about 1000 feet in the eastern end where the ridge is narrow to 2000 and 2500 feet in the western portion where the ridge widens to a rolling plateau or tableland and merges into foothills of the Cascade Mountains. Rainfall and natural moisture is sufficient to produce large crops of all grains, hay, alfalfa, vegetables, etc., in all highlands of these counties, except in the extreme east where it varies from 10 to 15 inches and the summer fallow system of farming is practiced for wheat, oats and barley crops. The climate is what is termed salubrious, summer heat rarely reaching 100 degrees or the winter cold to zero. The winter cold is

softened by chinook winds and summer heat reduced by mountain breezes. Klickitat County has a great diversity of topography as well as climatic condition and the variety of her resources is governed thereby. Rising from the Columbia River, hills break into wide valleys of grain fields which reach to the mountain slopes, where sheep and stock find rich summer range. From the Klickitat and White Salmon rivers narrower valleys of fruit and berry lands reach into the interior, while great forests of the mountain valleys and slopes await the lumberman.

Goldendale District

Goldendale is the principal city and commercial centre of the interior of the county. It is the county seat, has a population of 1300 people and is the terminal of a branch railroad built long ago to carry farm products to steamers on the Columbia but now a part of the Spokane, Portland & Seattle Railway which serves the entire southern part of Washington. Snow-capped Mt. Adams dominates the landscape. In all it is a broad, beautiful and productive country which only now is coming into its own. Elevation is 1600 feet, the country gradually rising to 2500 feet at the foothills. Grain and general farm lands sell from \$20 to \$75 per acre. Good crops of alfalfa and timothy are produced annually without irrigation and present farm development is toward more of these crops, cattle, hogs, and dairying. In the gently rising slopes west and north are many hundreds of acres of fruit and dairying lands where orchard development is now extensively in progress. These lands are worth from \$25 to \$60 uncleared or about double these figures cleared ready to plant.

Maryhill District

Maryhill is a beautifully situated city of 100 people overlooking the mighty Columbia River, surrounded by 6000 acres of rising benchlands from 175 feet to 1000 feet above sea level, sub-irrigated from higher water tables and lakes. At present the district is being held privately and developed at large expenditure for good roads and planting of orchards and vineyards. Older orchards bespeak the success of new and scientific horticulture.



Club Wheat, Big Bend Country. Land Values \$25 to \$40 Per Acre

The Lyle District

Lyle is situated at the mouth of the Klickitat River on the Columbia and has but few people now with promise of a good future growth. It is surrounded by about 2000 acres of the finest fruit lands little of which is developed. Raw land is covered with a fair growth of small trees which can be cleared at comparatively light expense. The canyon of the Klickitat here makes possible development of horsepower for manufacturing purposes. Climatic and natural conditions are much the same as in the White Salmon Valley.

White Salmon Valley

This valley lies across the Columbia from the Hood River Valley in Oregon which is famous for its fruits and berries, and is like it in climate, soil and natural conditions and fast approaching it in horticultural fame. It extends some miles along the Columbia, follows the slopes of the White Salmon and smaller streams and includes the summit of the divide to the Klickitat River to the north and east twelve to fifteen miles. It is largely timbered with fir and pine, much of which remains in merchantable stand and size. Appreciation of the land's worth for fruit growing has led to extensive clearing and planting in recent years, about 8000 acres being now in orchard. A great deal of its area awaits the coming and industry of others. Elevation ranges from 100 feet at the Columbia to 1500 feet on the higher slopes. Mean temperature is 53 degrees and growing season is long. The annual precipitation is thirty to thirty-five inches, chiefly rains spring and fall, and snow in winter, but moisture is held throughout the summer in sub-irrigation. No irrigation is practiced except in some cases for strawberries where the yield is increased and ripening season lengthened. The soil is deep and rich and composed of what is known as "red shot" clay and volcanic ash that has already established a reputation for wonderful crops of perfect apples, pears, berries and all fruits. The town of White Salmon, with about 700 people, on a beautiful slope 300 feet above the Columbia, is the gateway to the valley, and Bingen, Underwood and Hood on the Columbia are shipping stations.

Trout Lake Valley

Trout Lake is near the head of the White Salmon Valley about 25 miles from the Columbia. Altitude is 1900 feet, making the seasons

shorter. The trip through the White Salmon Valley orchards, gardens and forests along the dashing White Salmon River is a favorite one with tourists who come in great numbers during summer months to enjoy the ice and lava caves and mountain scenery. Irrigation is desirable for hay, vegetables and some other crops and a farmers mutual system has been organized to cover about 25,000 acres. While it is some distance from the railway the nature of its most prolific productions does not require heavy facilities and the abundance of water power of the entire valley warrants the expectation of early development in this direction. This valley offers some of the best opportunities of the entire state for a man of limited means to secure a home.

Camas Valley

Twelve miles east of Trout Lake is the rich Camas Valley, reached by stage thirty miles from White Salmon, north. The main body of the valley is about 12,000 acres of sandy loam and ash soil, 10,000 acres of overflow and adjoining sloping land in a drainage district now being reclaimed, with 15,000 acres covered with pine, subject to irrigation, and 3000 acres of timbered red shot soil sloping north. In all over 40,000 acres capable of producing large crops of oats, wheat, alfalfa and other hay, fruit and garden products. About 100 families now live in the district and farming results have been very gratifying. Reclamation by irrigation and drainage will open this large section for hundreds more farmers where land prices range from \$25 to \$75 per acre. The open pine lands of forest reserve to the north provide cheap pasturage for stock where now more than 60,000 sheep find summer feed. Rail transportation is expected as soon as a fair settlement of the country is accomplished.

M. O. Dayton, Goldendale, Klickitat County, Wash., writes—

"I came here ten years ago from Minnesota and purchased a farm of 490 acres. 160 acres are under cultivation now. Crop during the last four years has been: 1908—100 tons grain hay at \$12.00 per ton, eight tons of alfalfa at \$10.00 per ton, \$100 worth of hogs, \$50 worth of fruit. Total \$1430. 1909—50 tons of grain hay at \$18.00 per ton, \$1130 worth of pigs, \$75 worth of fruit. Total \$2075. 1910—38 tons baled hay, \$646; 20 tons loose hay, \$260; 6720 pounds pork, \$633.80; fruit, \$375. Total \$1914.30. I think Klickitat County is the most healthful and best climate in the state. We will do well in dairying as alfalfa is fast becoming a common crop."



One Cow in This Herd of Holsteins in Western Washington Gave 99.6 Pounds of Milk Per Day and in Seven Days Made 27½ Pounds of Butter. Western Washington Is an Ideal Dairy Country

WESTERN WASHINGTON



BRIEF summary has already been given of the widely different climatic and natural conditions caused by the great barrier of the Cascades between eastern and western Washington. A study of the following table of average monthly temperature and rainfall at Seattle will be enlightening and correct any erroneous impression.

Months	Average Temperature Degrees	Average Precipitation Inches	Average No. of Rainy Days (.04 or more)	Average Snowfall Inches
January	39.3	4.52	16	6.8
February	40.5	3.86	13	1.8
March	44.2	3.60	12	1.9
April	49.4	2.68	9	---
May	55.0	2.32	10	---
June	60.1	1.72	7	---
July	63.6	0.69	3	---
August	63.1	0.49	3	---
September	57.9	1.93	7	---
October	50.8	2.88	10	---
November	44.5	5.86	15	0.4
December	41.2	6.04	16	1.2
Year	51.8	36.59	121	12.1

As a general rule, the topography of western Washington may be termed "broad ridges of varying height and size," reaching upward from the coast to the foothills of the mountains, the soil of which is a clay loam of varying texture and intermixed with the decayed vegetation of centuries and these ridges are separated by the river and smaller stream valleys, many of which are quite extensive, where

the soil is a silt or alluvial deposit mixed with the clay washed from the hills and vegetable mould of ages; and where these valleys open into Puget Sound, great deltas or tideflats have been formed where the alluvial soil is of great depth.

A range of only 24 degrees between average January and July temperature explains the great enthusiasm of citizens of this region for its climate. As will be seen half the days of the "rainy season" are clear and rainless and in the dry season one day in ten is rainy. However, owing to variation in altitude almost every climatic condition of the temperate zone may be found within a distance of 30 to 40 miles in any portion of this region. As the most important agricultural areas are confined to low altitudes climatic conditions throughout are about as shown in the table, except on the Pacific slope of the Olympic Mountains and counties bordering on the Pacific Ocean in southwestern Washington, where rainfall is much greater.

The combination of long days of sunshine of the northern latitude, long growing season, abundance of rainfall and sub-surface moisture, with the incomparably rich natural soils of the coast lands, valley lands, and benchlands produces the most prodigal and abundant growth of vegetation of all kinds in Western Washington known in the entire United States.

With the exception of a few small prairies, river bottoms and tide lands the entire area of western Washington was covered with a dense forest of immense fir, cedar and hemlock, with alder, maple, oak and other deciduous trees in some of the lower lands. Logging, milling and manufacture of this timber at the rate of three to four billion feet per year makes Washington the greatest lumber producing state of the Union. About 100,000 acres of logged-off lands are left each year for the coming of dairymen, stockmen, fruit growers and gardeners. Out of a total population of western Washington of 732,291 more than 200,000 live on farms, which indicates the rapid



Typical Truck and Dairying Farm Home on Cut Over Lands in Southwest Washington

progress already made in clearing and converting these logged-off lands into wealth producing farms. The enormous crops of grains, forage and fruits produced are ample evidence of their fertility. Statements from more than one hundred farmers show that five to ten acres are sufficient for support of the average family in comfort.

Logged-Off Land

Total estimated area of logged-off lands in this part of the state is between 2,000,000 and 3,000,000 acres, and where exact figures are available amount in each county is shown. About one-half of the present annual increase is being improved each year. As first logging operations followed the rivers and railroad so has farm development followed these, but much of the valleys remain in stumps and many farms have already been cleared on higher lands and benches. So much farming is done in all localities that only ordinary observation and judgment are required to select the most productive lands. Cost of clearing these lands varies greatly owing to variation in thickness of timber and size of trees, but where the land may be used as pasture first labor is the greatest item and the home builder may start in a small way with a few acres cleared and two or three cows, some chickens and pigs, and a small amount of cash. The process has already been outlined for eastern Washington and would be substantially the same in this part of the state, involving only more time and labor. Contract cost varies from \$75 to \$125 per acre where it is done in this way. Under the new law of the State of Washington, clearing districts similar to the drainage districts of the east or irrigation districts may be established and bond issued to provide funds for clearing by contract or by the owner. These bonds bear low rate of interest and are redeemable in installments and over a period of years so that both interest and principal may be paid from proceeds of crops. This law is expected to stimulate clearing so that the lands will be cleared for farming as rapidly as logged. It is also a sign of the progressive spirit of citizens of the state.

Many of the large lumber companies own thousands of acres of logged-off lands which can be bought at prices varying from \$20 to \$50 per acre, though exceptionally rich or well located small pieces in some localities are held at higher prices. In all counties some of the best may be bought at about \$25 per acre. The value of cleared and improved farms as a rule runs from \$100 to \$200 per acre higher than the same kind of stump land. Most of this land can be bought

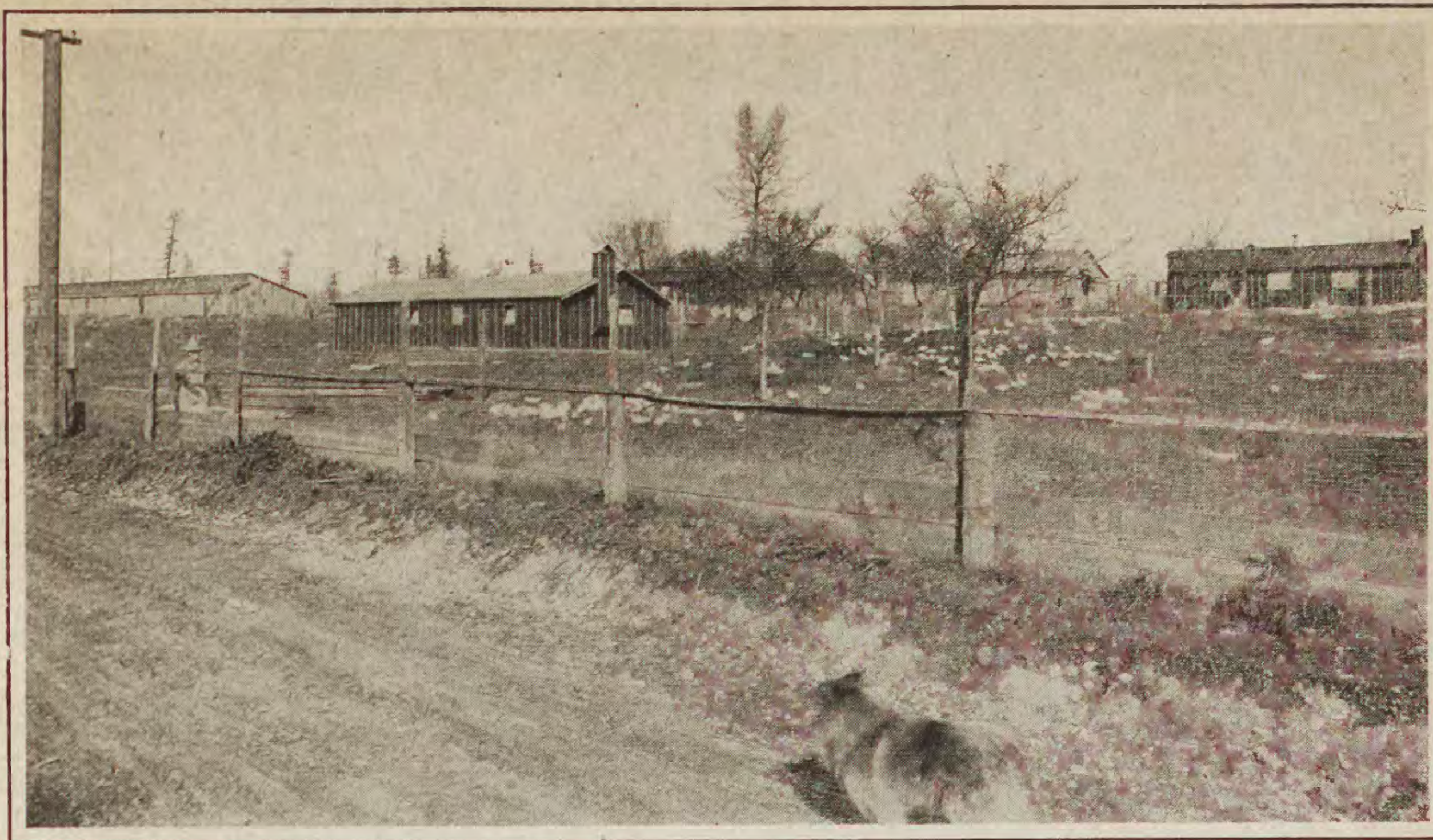
on long time and easy terms at low interest. Some of the lumber companies offer terms as long as ten years with no payments for five years, allowing this five years for the farmer to get his land in condition to bear profitable crops and meet other expenses of getting established.

Farm Products

Owing to the great quantities of feed produced and long season of green pastures dairying is the leading industry of the farms and forms the main source of farm income. It not only is the natural industry and best adapted to climate and soil but works to perpetuate the wonderful fertility of the soil. Oats, wheat, barley and rye are raised for grain as well as hay; timothy, clover and vetch are produced on every farm, and alfalfa is beginning to be an important item of farm forage; all kinds of pasture grasses together with unheard of yields of thousand headed kale; these with various root crops constitute the feed crops. All kinds of grain, garden vegetables and small fruits of every description grow to perfection and produce immense yields. Tree fruits are produced in quantity to meet the demands of local markets. Owing to local conditions of soil and markets many sections are given over to the production of specialties, such as strawberries from Vashon Island, raspberries, blackberries and logan berries from the now famous Puyallup Valley, although these are produced in varying quantities in all this part of the state. Hops have formerly been raised in large quantities around Puget Sound and southwestern Washington though the output has diminished in late years.

Markets

No other farming section of the United States enjoys the high prices secured for produce by the farmer of this section. Well over two-thirds of the population live in the larger cities and in spite of the increasing supply of food products millions of dollars' worth of these are brought from outside the state annually. With the expanding manufacturing and industrial establishments the increase in production has not kept pace with the increased demand. Thousands of horses engaged in lumbering and street traffic of the cities create good markets for hay and grain, and many cars of this feed are brought over the mountains from eastern Washington as well as from outside the state. The demands for food products for both man and stock from Alaska and ocean commerce absorb a consider-



Poultry Growing is Profitable in Washington

able quantity of the output of farms in this section. Butter-fat brings from 30 to 45 cents per pound, whole milk from \$1.50 to \$1.65 per hundredweight, \$50 worth of threshed oats are frequently sold from one acre, timothy hay from \$18 to \$25 per ton, and grain hay, wheat and oats \$15 to \$20, potatoes average more than one cent per pound, pork on the hoof \$8 per hundredweight or better, cord wood from \$3 to \$5 per cord, and all other articles from the farm in proportion.

On account of the narrow confines of the farming sections little of the best farm land lies to exceed two or three miles from railway. Many interurban lines are being built and water transportation is available from many productive sections of the region. The great amount of traffic from limited territory will always tend to keep down rates.

Truck Gardening, Poultry and Fruit Growing

No natural soil in America will produce such immense yields of garden vegetables and berries as the alluvial valleys of this region, and the truck producers here reap the highest reward for their labor. This is due to the number of times during the season that the ground may be replanted, new crops coming from February to December. The rich valley lands adjacent to the large cities suitable for gardening can be bought in small acreage tracts at from \$50 to \$250 per acre within team hauling distance of the central markets while already improved truck lands similar in character are valued from \$1000 per acre upward. Strawberries, raspberries, rhubarb, celery, asparagus and similar fruits and vegetables return from \$250 to \$1000 per acre to the gardener and fruit grower. For poultry raising no other section offers such distinct advantages. Total value of all poultry in the state according to the 1910 census was less than \$1,500,000, while more than \$10,000,000 worth of eggs alone were consumed, not half of which were produced in the state. Eggs sell at from 30 to 60 cents per dozen through the year. Land suitable for poultry raising can be had within two to six hours' rail or boat haul of the market centers at from \$25 to \$50 per acre in small tracts. However, these three pursuits go well together on a small ranch and with careful management five acres of land should keep the family and leave a good annual profit.

Opportunities in Dairying

The immense areas of cut-over or logged-off lands of western Washington offer unlimited opportunities for starting in dairying and hog raising together. For starting these pursuits the land need be only partially cleared before seeding to pasture. With a few goats to aid after slashing and burning clearing may easily proceed sufficiently to add two or three cows to the herd each year. Clover, timothy, alfalfa and oats will yield three to four tons per acre; rye and vetch will make the first green hay of spring, four to six tons per acre; carrots and stock beets fifteen to thirty tons and thousand headed kale, often five to seven feet high, from 20 to 50 tons per acre. With careful and well managed use of the land one acre will support two cows the year through. With hogs to take care of waste and surplus feed and with a calf every year the income for the place will average \$100 per cow. While this income the first two or three seasons may be small and merely support the family the labor expended in clearing will be doubly paid in building a home and in increased value of land holdings. No exclusive wage earner can look on the increasing family expenses and uncertainty of employment with the degree of satisfaction that accompanies the building of a home and a steady independent income on these lands.

Industries

Only thirty years have elapsed since the first settlements were made in western Washington where now stand cities of from 40,000 to over 200,000 people, their sites then covered with impenetrable forests. Nearly one-third of the working men of this part of the state are engaged in cutting, logging, milling and allied manufacturing pursuits. Still, at the present rate, the forests will hold out for 100 years.

Shiploads of cod are brought from Behring Sea and packed in Puget Sound canneries.

Mining employs a considerable number of workers and this industry is yet in its infancy. Both coal and ores, precious and heavy, exist in great bodies.

Waterpower is available for all power needed and but a small portion is yet developed. A dozen rivers fed by melting snows of the Cascades tumble down mountain canyons in a comparatively regular volume throughout the year.



A Herd of Holsteins, Mount Vernon, Skagit County. One Holstein Cow in this Herd produced Over 16,000 Pounds of Milk in One Year

PUGET SOUND

Agriculture



THE agricultural lands of western Washington may be divided into two major divisions: The Puget Sound Basin, embracing territory joining on the 2000 miles of Puget Sound coast line, and extending an average of about 25 miles from it to the rough and mountainous foothills; and southwestern Washington, embracing the extensive valleys of the Chehalis, Cowlitz and Lewis rivers with smaller streams emptying into the Columbia.

WHATCOM COUNTY, population 49,511, bordering British Columbia, agricultural area covering about sixteen townships, about 42,000 acres improved land, 385,000 acres logged-off land, average farm size forty acres. Value logged-off land \$10 to \$50 per acre, value improved land \$150 to \$200 per acre. Bellingham, county seat, population 24,298; Blaine, population 2289. Principal valley, Nooksack River.

SKAGIT COUNTY, population 29,241, agricultural area about fifteen townships, improved land 54,544 acres, logged-off area not known but probably over 200,000 acres, average farm 40 acres. Value logged-off and unimproved land from \$5 to \$100 per acre, improved farms \$150 to \$350 per acre. Mount Vernon, county seat, population 2381; Burlington, 1302; Sedro-Woolley, 2129; Anacortes, 4168; LaConner, 603. Principal topographical features, Skagit River Valley and LaConner Flat tide land, Fidalgo Island.

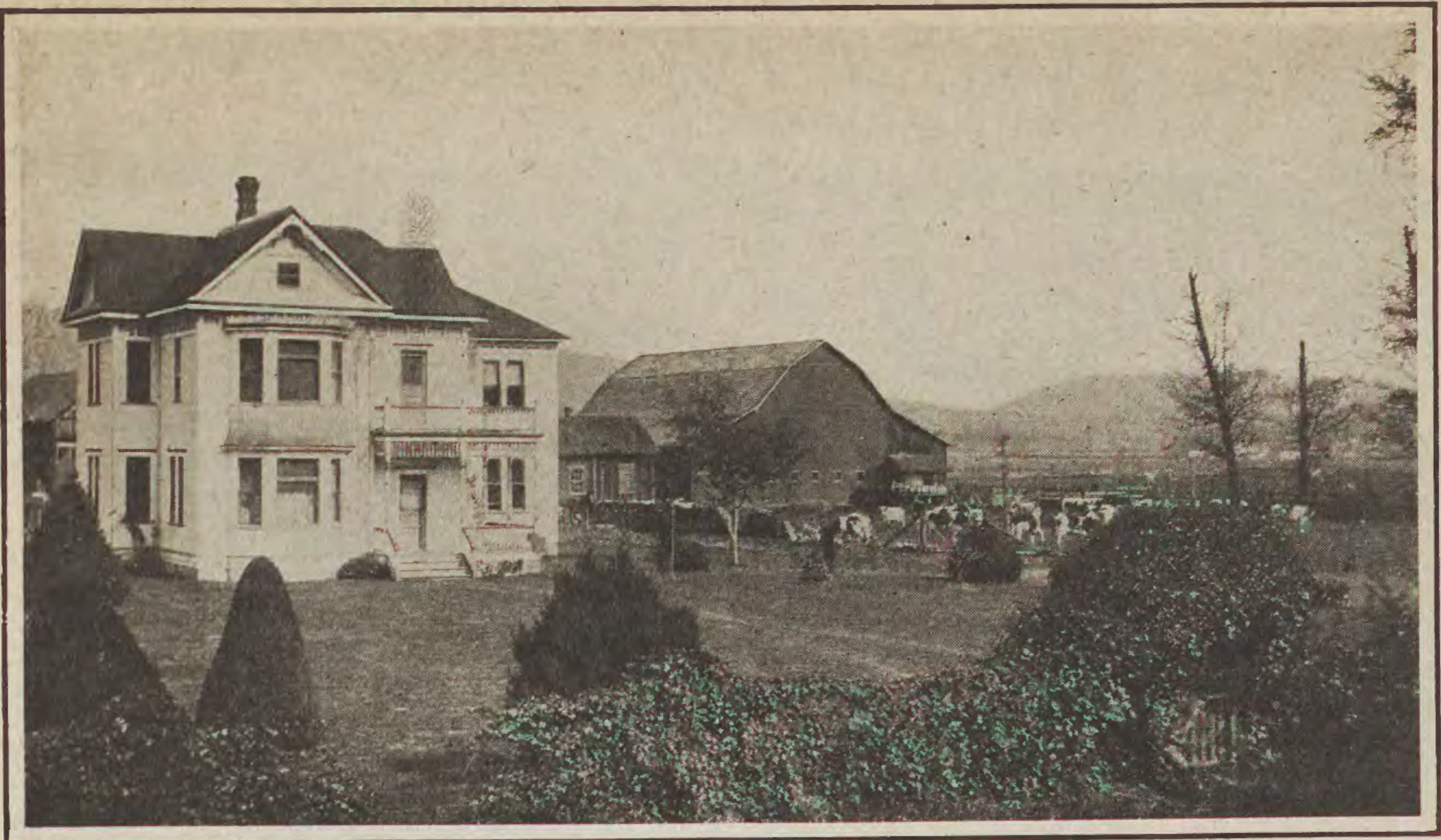
SNOHOMISH COUNTY, population 59,209, agricultural area about 22 townships, over 32,000 acres improved land, value \$100 to \$300 per acre, logged-off land, 235,000 acres, one-half suitable for farming, value \$5 to \$50 per acre, farm size 40 acres. Snohomish, population 3244; Monroe, 1552; Stanwood, 544; Marysville, 1239; Everett, 24,814.

Snohomish County contains the rich and beautiful Skykomish Valley. This county, with Skagit and Whatcom, contains wonderfully rich farming and dairying sections, the former famous for immense crops of oats, potatoes and hay, and the latter for the well bred dairy herds. A testing association showed that the cows of the district averaged 275 pounds of butter-fat for the year which at 40 cents per pound amounted to \$110. Owing to mild and uniform climate all stock grows rapidly and develops wonderfully. At a county fair at Burlington more than \$100,000 worth of live stock was exhibited.

City of Everett

In 1890 Everett was not included in census report. In 1900 she had 7838 people and in 1910 almost 25,000. Here the Great Northern Railway first strikes the Sound and ocean going ships meet the railway in the 22 mile harbor. Manufacturing of lumber, implements and furniture, logging machinery, etc., flour, powder, leather, stoves, brick and arsenic, employs about 5000 men and gives an annual payroll of \$4,211,000. Many other manufacturing plants using raw materials of the region and supplying the demand of a fast growing community are also in operation. Cheap power is one of the greatest inducements for new enterprises. Everett is the leading city of the Pacific Coast in lumber output and as a log market and for logging machinery. Already 200 men are employed in the manufacture of paper, an industry which has barely been established in the Pacific Coast country. Everett has nearly 50 miles of graded street, 16.6 miles of paved street and 15.6 miles of street car lines and is a modern and well built city of beautiful homes—a remarkable result in contrast to the forests of twenty years ago. Bank deposits have more than doubled in the past seven years. She has excellent educational and church institutions and a school enrollment of 4500.

The commercial club has just issued a comprehensive book giving information that is sought by prospective investors, business men or manufacturers.



Dairying Pays in Washington. A Test Showed That These Cows Averaged 275 Pounds of Butter Fat for the Year, Which at 40 Cents Per Pound Made \$110 Each, or \$9.16 Per Month Per Cow

The cities of these counties are known through the entire country for their famous brands of condensed milk; plants being located at Mt. Vernon, Stanwood, Marysville, Snohomish and Monroe.

Garden seed and flower bulbs are produced here and more than 1000 acres are devoted to these purposes.

Seattle

The population of Seattle, according to Polk's Directory, in 1912 was 281,896. The population has increased very rapidly. A mere village in 1880 it had a population of 80,000 in 1900 while in 1910 the population was 237,194. Located on the shore of Elliott Bay, an arm of Puget Sound, which forms an extensive deep water harbor perfectly protected from storm and accessible to the largest vessels afloat at all times and at all stages of the tide, Seattle has become the American port of a number of the principal steamship lines operating upon the Pacific Ocean, and the home port of some of the greatest freight carriers in the world. The city is located on the east side of Puget Sound, 125 miles from the ocean. Within the next five years \$20,000,000 will be spent at Seattle in harbor improvement. Seattle has 60 different steamship lines operating their boats to and from this port.

BUSINESS GROWTH: In 1901 the bank deposits were \$20,237,862; in 1912 they were \$79,187,319. The yearly value of the manufactured products amounts to more than \$50,569,000. The leading industries of Seattle are shipyards, saw mills, shingle mills, flour, feed and cereal mills, brick yards, terra cotta works, foundries, machine shops, breweries, factories for the manufacture of sash, doors, blinds, woodenware, excelsior, barrels, boats, shoes, clothing, cars, wagons, carriages, furniture, tinware, soap, crackers, candy, pickles, brooms, baking powder, drugs, jewelry, saws, fishnets, woolen goods, trunks, stoves and numerous household commodities and food products. Seattle is becoming an important industrial center. There are splendid sites, cheap power and abundance of raw material here for manufacture.

Coal mining is one of the leading industries of the State of Washington. The coal fields extend over an area of several thousand square miles. All of the large mines except one are located within fifty miles of Seattle. Washington and British Columbia are the principal sources of supply for all the coal used on the Pacific slope. The output of the Washington mines is from 3,500,000 to 4,000,000 tons per annum.

Puget Sound Fisheries

The fisheries of Puget Sound have assumed vast proportions. Washington State leads all others in the value of this industry. More than \$4,000,000 in wages is paid out annually and the value of the output runs from \$10,000,000 to \$15,000,000 per year. In addition to its home fisheries Seattle is the headquarters and base of supplies for a large number of leading companies engaged in the salmon packing industries of Alaska and other places. In addition to the salmon the fisheries include halibut, cod, smelt, herring, oysters, clams, crabs and shrimp. Sealing and whaling add largely to the value of this industry.

Climate

Western Washington has an equable climate with no extremes of heat or cold. The summers are cool or moderately warm and the winters mild. There is little if any snowfall except in the mountains. At Seattle annual temperature is 51.4 degrees, ranging from 40.6 in January to 64.7 degrees in August. The average high temperature is 74 degrees, annual average rainfall 53.88 inches. The records of the health department show that the average annual death rate is 9.3 per thousand. Malaria and kindred diseases are unknown.

The University of Washington is located on a commanding site of 355 acres lying between Lake Union and Lake Washington. The attendance in 1912 was over 2500. The university is free to the youth of the state and is provided with every facility for imparting a liberal education. Some of the buildings on the grounds were built for the Alaska-Yukon-Pacific Exposition and subsequently donated for university purposes.

The United States Assay Office was established in July, 1908, and at this date the receipts are in the neighborhood of \$215,000,000. Alaskan gold comes to Seattle by every boat from the north. This is the principal supply point for this land of fabulous riches.

Tacoma

Tacoma is located at the southern extremity of Puget Sound, which forms an extensive deep water harbor, perfectly protected from storm and accessible to the largest vessels afloat. The population in 1900 was 37,724 and in 1910 was 83,743.



Spring Wheat, Big Bend Country, Eastern Washington

Tacoma occupies a leading place in the Pacific Coast cities in commerce, it being the terminal of many important steamship lines as well as one of the gateways to Alaska and the Orient. Tacoma manufactures more lumber products than any other city in the world; reduces more ores than any other city west of the Rocky Mountains; is the third city in the United States in the production of flour; the largest fisheries plant in the United States; largest furniture factories on the Pacific Coast; employs 13,000 men in manufacturing industries.

Some of the best denominational colleges and schools in the west are located here. Tacoma has eight banks with clearings in 1909 of \$280,878,800, a gain of 44% over 1908. Tacoma has earned the reputation of being one of the best paved and finest residence cities on the Pacific Coast.

Olympia

The capital, with 7000 people, is beautifully located, is a city of substantial business houses, handsome homes and public buildings. A new state house has been authorized to cost several million dollars and the new temple of justice to house the state supreme court and governor's mansion have just been completed. Thurston County, of which Olympia is also the county seat, contains 23,000 acres of improved lands and over 60,000 acres of logged-off lands. Many varieties of bush and tree fruits are produced here to perfection and sell at good prices to cities of Puget Sound. In addition many of the most productive dairy farms of the state are found in this county. It is especially well adapted for poultry.

Mason, Kitsap, Eastern Jefferson and Clallam Counties

These counties lie to the east of the Olympic Mountains and border the western and southern shores of Puget Sound and the Strait and have no rail connection with the outside world but miles of waterfront afford ready and cheap transportation for their products to Puget Sound markets. Together they have only a little over 40,000 acres of improved land and while little of the virgin forest has yet been removed from inland portions probably more than 150,000 acres of logged-off lands are available for farm development, and here this land is low in price. A chemical analysis of soils of the state credits Mason County with the greatest amount of plant food and this fact is readily borne out by crops produced.

This region is exceptionally adapted for poultry raising on account of its exceptional climate, being protected from the prevalent moisture by the Olympic Mountains. Total population of the four counties is but 37,895: Mason 5156, Kitsap 17,647, Jefferson 8337 and Clallam 6755. Shelton with 1163 people, is the county seat of Mason County; Charleston with 1062, of Kitsap County. Bremerton with over 3000 people is also in Kitsap County, and across the bay from Seattle. Here is located the United States Navy Yard. Port Townsend with 4181 people is the county seat of Jefferson County and Port Angeles with 2286 people the county seat of Clallam County. These four counties are probably least developed of the state and should receive the attention of all persons wishing to engage in farming pursuits in western Washington.

Bellingham, like Everett, was started about 20 years ago in a wilderness of forest and built up at first on the lumber industry alone, but on account of its extensive harbor and proximity to the great fishing grounds in the Straits and Gulf of Georgia, and among the adjacent islands became leader in the fishing industry. Lumber manufacturing plants and related industries are constantly expanding and the city maintaining a healthy growth. In addition it is supported by the widest area of developed farming land to be found in the "Sound" country, producing hogs, cattle, dairy products, as well as all grains, etc.

King and Pierce Counties



THESE counties occupy the southeastern portion of Puget Sound and are better known to the outside world for their large cities, Seattle and Tacoma, both of which are advantageously located for city building and scenic beauty, the feature of the latter being beautiful Mount Rainier, in sight from office, factory and home. The improved portion of tillable lands about these cities is highly developed in gardening, fruit and berry growing, and the outlying portions in dairying. The growing cities create a greater demand each year and many opportunities are offered for engaging in these pursuits, utilizing lands not yet improved. Pierce County has over 50,000 acres of unimproved logged-off lands. King



Irrigating In Grant County

County probably has 50,000 acres, though the exact area is not reported, improved land is 46,474 and 74,680 acres respectively. It is reported that these cities consume 33 cents per capita daily.

Between Seattle and Tacoma in Puget Sound is Vashon Island, a part of King County, which is almost entirely devoted to berry culture. About 400 cars produced in 1912. As much as 500 crates of strawberries per acre are produced, and all raspberries, blackberries and logan berries do equally well. More than 1000 homes can be built from the cut-over lands which can be bought at low price on ten years time.

Kent with 1908 people, and Auburn with 957 people, in King County, are the leading towns outside of Seattle and are headquarters for large milk condensaries.

Puyallup with 4544 inhabitants, and Sumner with 892 people, are the leading towns outside of Tacoma in Pierce County and centers of the greatest berry ranches in America. The most luscious raspberries, logan berries and blackberries are produced here, in size and quality superior to those in any other part of the United States. Hundreds of carloads of these are shipped fresh into states in the east as well as into the central states in preserved form and net their growers from \$200 to \$250 per acre profit. A great deal of the logged-off valley and benchland remains that can be converted into equally productive fruit ranches.

Island and San Juan Counties

These counties embrace islands in Puget Sound and contain 118,856 and 96,779 acres respectively. Island County has over 10,000 acres of improved farm land and about 60,000 acres of logged-off land suitable for farming. The farmed area of San Juan is not reported, though, judging by population, it is somewhat less than Island. Population figures are 4704 for Island and 3603 for San Juan. The islands of these counties are mountainous and the principal cultivated areas on eastern slopes. Products are chiefly strawberries and other small fruits for which they have a country-wide reputation, supplying the markets of Seattle and other main land cities with the largest and most luscious berries ever seen. They net their growers usually from \$300 to \$500 per acre. However, the greater portion of the improved land is used for grain, hay, potatoes and other farm crops and great quantities of butter and milk are produced. The lower valleys and benchlands are similar to those of the adjacent mainland. Many fishing fleets make headquarters in these islands and with timbering pursuits probably employs half

the population. The fruit growing opportunities here are limited only by the market demands which are far from satisfied with the present output.

Coupeville and Oak Harbor, with about 300 people each, are the leading towns in Island County. Friday Harbor, population 400, is the county seat and principal town in San Juan County. Great deposits of limestone are quarried and manufactured at Roche Harbor and Lopez. Lopez Island and northern part of Whidby are already well under way to development and contain large and prosperous farming communities.

Ross G. Fox, Lakeview, Pierce County, Wash., writes—

"I came from Columbus, Ohio, a year ago. Chances are excellent for the man with \$1500 who wants to go into the chicken business. With this money you can make first payment on the land, build and buy stock, and carry same until the eggs are coming. Lumber is very cheap. This is the finest climate in the United States. I have seen it all, north, south, east and west, and not excepting southern California. Never sick a day and always feel like hustling. We have good creameries. Lands may be purchased at \$50 to \$100 per acre."

R. B. Silva, Swofford, Lewis County, Wash., writes—

"We came from Mill Point, W. Va., in 1904, and bought a brush ranch with less than three acres of plow land. Have thirty acres under cultivation. Oats made 63 bushels, barley 70 and potatoes 400 bushels per acre; hay four tons per acre. We own 11 head of horses, 35 milk cows, 25 sheep, 40 hogs, 300 hens and 30 geese. Sold from our farm during 1912 \$3000 worth of produce, and have made \$1000 from each \$100 that we landed here with. We grow principally clover and vetch for hay."

H. L. Bull, Chehalis, Washington, writes—

"There is big money in dairying here if run right. From March 15 to November 1 my four cows produced \$441.07 and the next two months will bring it to over \$550, besides what we use at home. Will sell over 1500 pounds this December at \$1.70 per hundredweight. I raise two crops of oats and vetches on the same ground, the first for green feed early, and the second for hay. Have vetch seven feet high, cut before bloom. If this land is worked right there is no trouble about raising crops. I have never seen a failure if the land had proper treatment."

Alex. Yourex, Rainier, Thurston County, Wash., writes—

"I came here seven years ago from Bellevue, Michigan, and bought 120 acres of stump and second growth land on contract without paying any cash, and interest only the first year. Was required by the contract to clear five acres each year and now have the place paid for and would not take \$10,000 for it. Nearly everything will grow well here, such as grain, fruit and vegetables. Creamery eight miles from here runs auto truck all through this section collecting cream and dairying is profitable. Chances are good for getting started."

J. A. Hannah, Belleville, Skagit County, Wash., writes—

"I have been in this country 25 years. First bought 160 acres of dyked land at \$100 per acre, paid it out of the land, and in ten years sold it for \$200 per acre. Through business reverses returned to farming and bought stump land at \$100 per acre four years ago. Had 45 acres oats that made 125 bushels per acre, and 40 acres hay, pastured till May, then made four and one-half tons per acre. Potatoes made 600 bushels per acre. Dairying is in its infancy here but it is great and market fine. We sell \$312 per month from thirty cows during winter months. In summer it is much better. One acre will pasture three cows. We have many creameries and condensaries."



Clearing Stump Land



The Finished Product

Snohomish

Dairying, poultry raising, fruit culture and the growing of vegetables will be the basis of the future prosperity in this region. It is estimated that fully five thousand dairy cows are raised on the fertile pastures of Snohomish County. Two thousand gallons of milk go to Seattle, and fully a thousand gallons to Everett every day, from Snohomish city alone. This county is fast becoming a great poultry producing section. The soil and climate are especially adapted to this industry and in Seattle, Tacoma and other cities the prices for poultry products are always high.

Skagit County

Skagit County is one of the greatest dairying counties in the state. There are seven creameries in the county, four of which are

commercial concerns, securing their cream from a large territory. Skagit County is the largest producer of condensed milk in the northwest, the famous Carnation Milk condensing plant being located at Mount Vernon. The milk condensaries, creameries, and the large cities surrounding, offer ample markets at excellent prices for all the products of the dairy and the farm.

The Washington State College is located at Pullman, Washington. The buildings of this college represent an investment of \$1,417,473.00. This college is a very important factor in the development of the state agricultural and vocational training and their courses for practical farmers cover such subjects as fruit-growing, live stock, poultry, household economics, etc., and are held for six weeks in the early spring for the purpose of giving the practical farmer as well as the young the benefit of the most up-to-date methods of agricultural and horticultural work.

SOUTHWESTERN WASHINGTON



THE Spokane, Portland & Seattle Railway, a subsidiary of the Great Northern Railway, recently opened their line from Seattle to Portland along with the line from Spokane to Portland, giving the Great Northern access to this immense territory, including Lewis, Cowlitz, Pacific, Clark and Skamania counties, all but the first named bordering on the Columbia River. Farm development in this part of the state has been heretofore retarded by lack of adequate transportation facilities but is now going forward rapidly and promises to show the greatest growth of all sections during the present census decade.

The soil of these Columbia River counties on benchlands is what is known as "red shot" largely. It is a sandy reddish clay containing a great deal of iron and with cultivation mellows into a friable, easily worked soil. This soil is excellent for pears, prunes and cherries, as well as grain and other crops. The rainfall increases with nearness to the Columbia to about 45 inches. Fall breaks into spring without winter and the country is green throughout the year. The season of lightest rainfall is mid-summer but sub-surface moisture is

abundant and keeps pastures fresh and cultivated ground in good condition.

Lewis County

This is the only county in western Washington not touching tidewater, being entirely surrounded by land. While a great portion of it lies in the Rainier Forest Reserve and is mountainous, the entire area is over 900,000 acres, of which 51,271 are improved and nearly 200,000 acres logged-off land. Half the latter is classed as farm land and valued at \$5 to \$35 per acre. Population of the entire county is 32,127. Improved farms are worth from \$100 to \$150 per acre. The important agricultural area in northern part of the county is the great Chehalis Valley where the productions are limited only by the amount of well directed effort applied. The twin cities of Centralia and Chehalis, population 7311 and 4507 respectively, are the leading commercial centers of the county. Winlock, with 1140 people, is another important town. It is the commercial center for the Cowlitz Valley, the southern part of the county. While lumber manufacturing is the leading industry, creameries, milk condensaries, fruit canneries, brick making and other industries are beginning to take a part in the activities of this section. Great coal deposits are known to exist and considerable mining is already done.



Fruit Growing in Similkameen Valley, B. C.

Cowlitz County

Cowlitz County lies to the south of Lewis and is crossed by the fertile and extensive Cowlitz River Valley, with many small streams coming into it from east and west, and large areas of farming lands. The county contains about 12,000 acres of improved land and nearly 400,000 acres of logged-off land, three-fourths of which is reported as agricultural and selling for \$10 to \$20 per acre. Population of the county is 12,561. Average farm is about 20 acres. Prunes, cherries, apples and berries are the principal fruits and many farms have been devoted extensively to raising these. Many profitable dairy farms are already established. Owing to the great quantity of fine land already logged-off and good markets with so small amount of the county already farmed this county offers the greatest opportunity for starting on small means.

Kalama, the county seat, has 816 people, and is an important lumbering and fishing town as well as supported by a good area of improved land. Castle Rock, with 998 people, in the Cowlitz Valley, is the principal farming center of the county. Kelso, with 2039 people, is the largest town in the county and besides lumbering ships millions of smelt each year. Several smaller towns provide trading centers and shipping points for cream, fruit and farm produce.

NOTE.—All population figures shown herein are from the 1910 Federal Census, but in many cases present population is as much as 10% per year greater.

Clarke County

Clarke County is opposite Portland on the Columbia, has a population of 26,115 people, 54,064 acres improved farm land, and over 160,000 acres of logged-off land suitable for farming. The county rises by gentle slopes from the Columbia, forming an undulating plateau from 10 to 25 miles wide, merging into the foothills of the Cascades.

Dairy farms and prune orchards predominate. 300 cars of prunes are shipped and exported annually. Until the building of the "North Bank" road the county was practically without railway and the southern part little developed. Many English walnuts and filberts have been planted and promise good returns. All kinds of vegetables, small fruits and grain crops yield well and have good markets in the manufacturing centers of the county as well as Portland. Unimproved land is worth \$15 to \$60 per acre and improved farms \$75 to \$150, with little for sale.

Vancouver, with 9300 people, is the county seat and largest city. Vancouver Barracks has about 1500 enlisted men and is headquarters of the United States Army, Department of the Columbia. Vancou-

ver has good business and fine residence buildings, various factories, two creameries, and is division headquarters of the "North Bank" road.

Other towns are Washougal, with 600 people, a milk condenser consuming 10,000 pounds of milk per day at \$1.70 per hundredweight, an eleven loom woolen mill making blankets and robes, and ample waterpower for other factories; Camas, with 1300 people, lumber mills, and paper mill employing 400 people with monthly payroll of \$25,000; and other small towns showing good growth with the rapidly developing farming country back of them.

Skamania County

Skamania is principally mountainous, occupying the Cascade divide which is cut by the great canyon of the Columbia. Many small streams tumble down from glacial fields and aside from the narrow strip of farming land afford mountain resorts of great scenic beauty to which come by rail and boat crowds of Portland picnickers and campers. Gardening and berry raising, with small dairying establishments, make up the farming activities on about 5000 acres of improved land. Double this area is yet unimproved.

Collins, Carson and Stevenson are the principal towns, the last named the county seat, with about 450 people. These towns are located on the Columbia at mouths of mountain streams which give outlet for the immense forests farther back and higher. The farming area varies from three to eight miles in width. Passing along the "North Bank" road passengers are unaware of the existence of these beautiful little cities as they are located above the track on the benchland.

Pacific and Wahkiakum Counties

These counties border the Columbia north of its mouth and owing to lack of railway the southern part is little developed, the citizens being chiefly engaged in lumbering and fishing. Agricultural possibilities are about the same as other districts facing the Columbia, but practically undeveloped. Cathlamet is the county seat of the latter named county, supported by lumbering, fishing and dairying. The Spokane, Portland & Seattle Railway skirts the south shore of the Columbia and furnishes transportation for all products to markets of Portland and other cities.

The General Passenger and Freight Agent of the Spokane, Portland & Seattle Railway has published a complete pamphlet giving detail information about the country bordering the Columbia River in Washington, and it may be had free by writing him.



Visit Our Free Information Bureau and Exhibition Rooms

ST. PAUL CHICAGO ST. LOUIS DES MOINES SEATTLE

When in any of these cities you should visit these rooms. An hour or two can be spent to good advantage looking at the grain and fruit displays, and will give you a good idea of the productiveness of the territory along the Great Northern Railway in Minnesota, North Dakota, Montana, Idaho, Washington, Oregon and British Columbia. In addition to the exhibits, there is a fine collection of enlarged photographs of the country. Many are exquisitely hand colored. Free advertising literature may be had which treats of all the territory served by the Great Northern Railway. These Exhibit Rooms are open daily, except Sunday. Experienced men who are thoroughly familiar with conditions in the West will be glad to answer your questions. Visitors welcome.

Two Doors from Union Depot, St. Paul, Minn. 210 So. Clark St. and C. B. & Q. Ry. Gen. Offices, Jackson Blvd., Chicago, Ill. 217 North Eighth St., St. Louis, Mo. 315 Seventh St., Des Moines, Ia. Second and Columbia Ave., Seattle, Wash.

Read the Following Until You Fully Understand It

What Constitutes a Carload of Emigrants' Movables

All second-hand articles, such as household goods, vehicles, agricultural implements, wagons, tools and farm machinery, properly forming the outfit of and for the use of intending settlers. The following articles may form a part of a carload of emigrant movables: Grain, for seed, and a sufficient amount for feeding animals in transit; 2,500 feet of common lumber; 250 fence posts, portable house, trees, shrubbery, live fowls and ten head of live stock, subject to conditions of live-stock contract.

The carload rates are based on ten head of live stock and a minimum weight of 20,000 pounds per car west of Chicago. From Chicago and points south thereof, the rate is based on a minimum of 20,000 pounds, while from points east of Chicago only five head of live stock are allowed, and minimum weight per car is 12,000 pounds up to Chicago.

When car contains live stock, one man will be passed free in charge of same.

Carload shipments of emigrants' movables must contain a sufficient quantity of furniture to make the intention of a permanent residence at destination evident.

If you have only a few hundred pounds of goods to ship, it is best to ship them by local freight. In this case, pack them carefully and bill them through to destination. Ask your local agent to endorse on bill-of-lading the following: "Second-hand household goods released to valuation not exceeding \$10.00 per hundredweight."

E. C. LEEDY, General Immigration Agent, Great Northern Building, St. Paul

To Intending Settlers

If you desire full particulars in regard to our colonies in the states of Oregon, Washington, Montana, Idaho, North Dakota, or Minnesota, or if it is your intention to join them, please fill out the following slip and mail it to E. C. LEEDY, General Immigration Agent, 113 Great Northern Building, St. Paul, Minn., and write letter giving full particulars. We will try and have one of our traveling agents see you without delay and make all necessary arrangements. Please send us the names of your neighbors or friends who talk of moving to the Northwest.

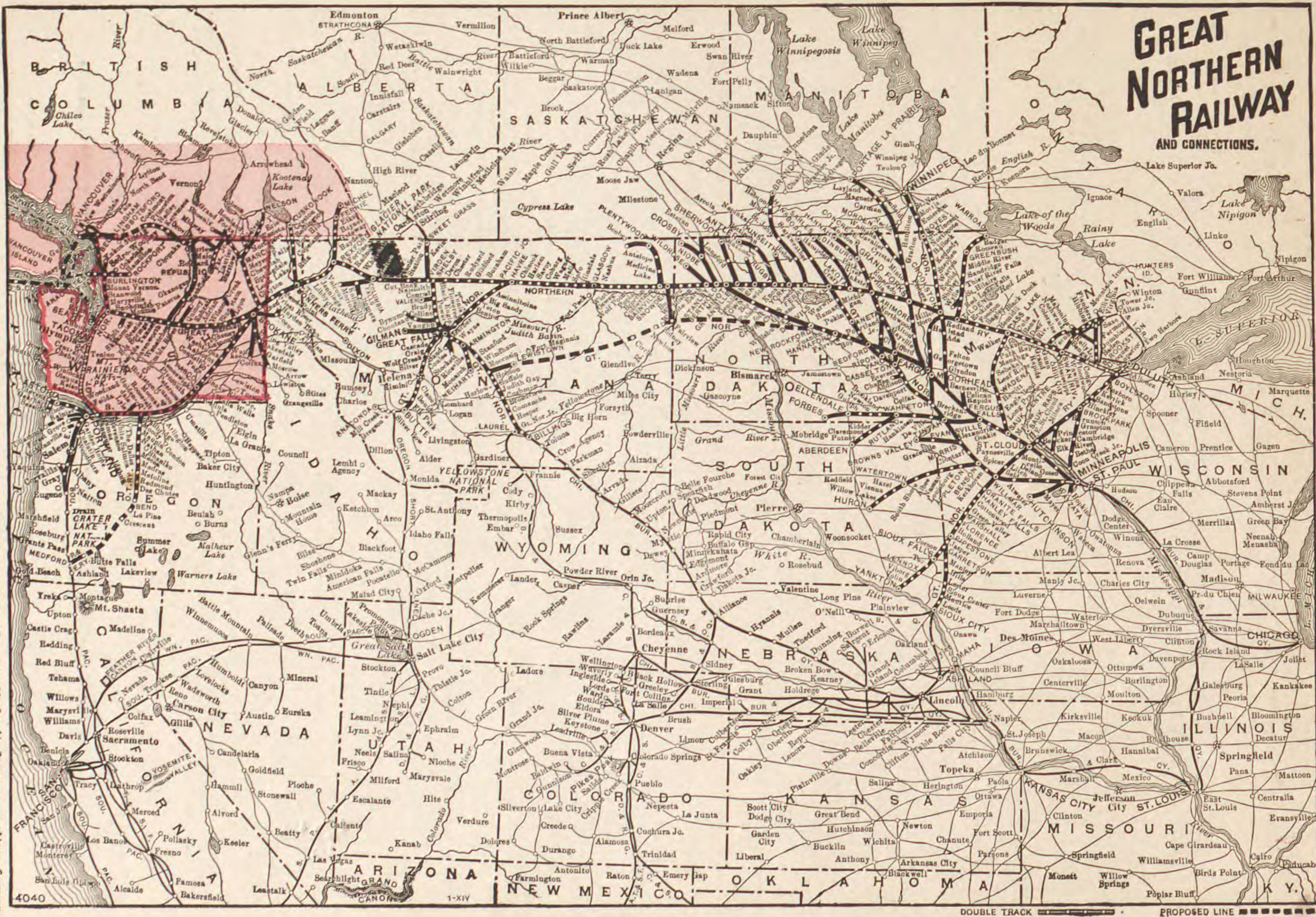
(Cut this out and mail to E. C. LEEDY, General Immigration Agent, Great Northern Building, St. Paul.)

I intend to move to the state of on or about 191.....
and will require whole tickets, half tickets, and car, emigrant movables.
Please give me full particulars and send your agent as soon as possible.

Name

P. O. County State

Thousands now in Washington secure independent incomes from five-acre orchards, small fruit farms, poultry farms, truck gardens. The completion of the Great Northern Railway's line from Wenatchee to Oroville will open up an enormous agricultural area to the markets of the West. A large part of the land is yet untouched. Washington needs you. It will make you independent. Read what others have done there, then write to
E. C. LEDY, General Immigration Agent, 115 Great Northern Building, St. Paul, Minn.



YOUR OPPORTUNITY IN WASHINGTON

Send For These Books

Accurate information for the land-hungry—about the paying farm opportunities in the great Northwest—is furnished by the Great Northern Railway's booklets and pamphlets—a list of which follows

WASHINGTON.

40-page booklet. Cover and maps in colors. Handsomely illustrated. Describes climate, industries, opportunities and advantages of living in the Evergreen State. Fruit-growing, dairying, poultry-raising, farming, truck-gardening. Tells about opportunities in British Columbia and Idaho.—Free.

MONTANA.

40-page booklet. Cover and maps in colors. Illustrated throughout. Tells about Montana's rapid growth and the wonderful opportunities yet to be had. Procure a free home of 320 acres. Describes every section of Montana along the Great Northern Railway.—Free.

OREGON.

36-page booklet. Handsomely colored cover and maps. Illustrated from photographs of the country. Describes Oregon. Tells about territory in Central Oregon opened up by Oregon Trunk Railway. Your chance on free 320-acre government homestead land. General farming, stock-raising, poultry-raising, alfalfa and wheat-growing, lumbering and fruit-growing.—Free.

NORTH DAKOTA.

36-page booklet. Well illustrated cover and state map in four colors. Tells about cheap but fertile farming land in North Dakota, dairying, hog and cattle-raising, state school lands, irrigation in Northwestern North Dakota, and other farming opportunities along the line of the Great Northern Railway.—Free.

MINNESOTA.

36-page booklet. Cover in colors. Well illustrated. Describes really remarkable opportunities for the newcomer in Minnesota—the great dairying state. Low-priced logged-off land, government homestead land, state school land—all remarkably productive and near great markets and creameries.—Free.

MONTANA MAP FOLDER.

An illustrated folder in two colors showing location and acreage of U. S. free government homestead land in Montana. Large map showing each township and number of acres unappropriated land. Free on request. Tells about land open to homestead entry under new three-year homestead law.

GLACIER NATIONAL PARK PLAYING CARDS.

Superior quality card, printed in three colors on back. Send 20 cents.

TO THE SCENIC NORTHWEST.

A 40-page folder, describing the principal cities and scenic attractions reached by the Great Northern Railway.—Free.

THE FERTILE FLATHEAD VALLEY (Montana).

An attractive booklet, in four colors, showing the great opportunities for the fruit-grower and farmer in this fertile valley.—Free.

For copies of these publications and for information about fares and train service write to any of the Great Northern Representatives

Bellingham, Wash., 137-139 West Holly St.—C. D. Thompson, General Agent.
 Boston, Mass., 264 Washington St.—W. A. Seward, Gen'l Agent.
 Bremerton, Wash., New Bremer Bldg.—R. C. Mikkils, City Passenger and Freight Agent.
 Buffalo, N. Y., 299 Main St.—Geo. Eighmy, Jr., Trav. Pass'r Agt.
 Butte, Mont., 102 North Main St.—D. E. Wilder, City Passenger and Ticket Agent.
 Chicago, Ill., 210 South Clark St.—C. W. Pitts, General Agent, Passenger Dept.; E. H. Moot, District Passr. Agt.; W. S. Weber, Trav. Passr. and Imm. Agt.; C. C. Morrison, Trav. Passr. and Imm. Agt.
 Cincinnati, Ohio, 411 Traction Bldg.—W. E. Hunt, Gen. Agt.
 Cleveland, Ohio, 301-302 Rockefeller Bldg.—G. H. Cornwall, Commercial Agent.
 Des Moines, Iowa, 315 Seventh St.—W. M. Romine, District Passenger Agent.
 Detroit, Mich., 710 Majestic Bldg.—E. B. Clark, General Agent.
 Duluth, Minn., 432 W. Superior St.—A. E. Hathaway, District Passenger Agent.
 Everett, Wash., 1521 Hewitt Ave.—H. E. Stephens, Ticket Agent.
 Fargo, N. D., 55 Broadway.—J. L. Rohan, City Ticket Agent.
 Grand Forks, N. D.—M. Neville, Ticket Agent.
 Helena, Mont., 58 N. Main St.—J. T. McGaughey, Asst. Gen. Freight and Passenger Agt.; Chas. Doherty, City Passenger and Ticket Agent.
 Kansas City, Mo., 823 Main St.—F. T. Holmes, Traveling Passenger Agent.
 Lewistown, Mont.—J. B. Cook, Trav. Frt. and Pass'r Agent.
 Los Angeles, Cal., 606 So. Spring St.—J. W. Phalon, Traveling Freight and Passenger Agent.
 London, S. W., England, 64 Haymarket.—H. G. McMicken, European Traffic Agent.
 Milwaukee, Wis., 110 Wisconsin St.—P. E. Meany, Gen'l Agent.
 Minneapolis, Minn., 313 Nicollet Ave.—V. D. Jones, City Passenger and Ticket Agent.
 Minot, N. D.—W. C. McHugh, General Agent.
 Montreal, Que., 22 St. John St.—W. T. Hetherington, District Freight and Passenger Agent.
 Nelson, B. C., 1423 Baker St.—R. J. Smith, District Freight and Passenger Agent.

New York, 1184 Broadway, Centurian Bldg.—Stephen Lounsbury, General Agent, Passenger Department.
 Philadelphia, Pa., 836 Chestnut St.—M. M. Hubbert, District Passenger Agent.
 Pittsburgh, Pa., 307 Henry W. Oliver Bldg.—P. H. Yorke, District Passenger Agent.
 Portland, Ore., Morgan Bldg., 348 Washington St.—H. Dickson, City Passenger and Ticket Agent.
 Regina, Sask.—J. C. Leacy, Trav. Freight and Pass'r Agent.
 San Francisco, Cal., 655 Market St.—Geo. W. Colby, General Agent.
 Seattle, Wash., King Street Station.—C. W. Meldrum, Asst. General Passenger Agent, Cor. 2nd Ave. and Columbia St.; T. J. Moore, City Passenger and Ticket Agent; F. W. Graham, Western Industrial and Immigration Agent.
 Sioux City, Iowa, 510 Fourth St.—F. W. Seibert, City Passenger and Ticket Agent.
 Sioux Falls, S. D.—Thos. Simpson, General Agent.
 Spokane, Wash., Cor. Sprague Ave. and Howard St.—D. G. Black, General Agent.
 St. Louis, Mo., 217 North Eighth St.—R. K. Pretty, General Agent; W. C. Thorn, Traveling Passenger Agent.
 St. Paul, Minn., 330 Robert St., Cor. 4th.—W. J. Dutch, District Passenger and Ticket Agent; L. L. LaRue, Traveling Passenger Agent; W. S. Chadwick, Traveling Passenger Agent, Corner Third and Broadway.
 Superior, Wis., 917 Tower Ave.—R. F. Willcuts, City Passenger and Ticket Agent.
 Tacoma, Wash., Bankers' Trust Building.—E. J. Healy, Gen. Agent.
 Toronto, Ont., 56 King St. East.—H. E. Watkins, General Eastern Canadian Agent.
 Vancouver, B. C., 314 Hastings St.—A. Whitnall, City Passenger and Ticket Agent.
 Vancouver, Wash., 115 West Sixth St.—C. K. Christopherson, City Freight and Passenger Agent.
 Victoria, B. C., 1200 Douglas St.—W. R. Dale, Gen. Agent.
 Winnipeg, Man., 226 Portage Ave.—A. Brostedt, District Freight and Passenger Agent.

Read this bulletin with care. If, after reading it, you desire further information about the crops, soil, climate and opportunities for farmers in Washington write to

E. C. LEEDY, General Immigration Agent, St. Paul, Minnesota

M. J. COSTELLO
 Assistant Traffic Manager
 Seattle, Washington



H. A. NOBLE
 General Passenger Agent
 St. Paul, Minnesota