

HOP FIELDS OF PUYALLUP AND WHITE RIVER.

THE hop industry is an important and growing one on the Pacific Coast. California, Oregon and Washington Territory harvested 40,900 bales in 1883, and the crop of the present year, the statistics for which have not yet been fully gathered, will be largely in excess of that of any previous season. This is due to two facts—a largely increased acreage and a high average yield per acre. Some yards are yielding 3,000 pounds per acre, and many others are averaging 2,500 pounds. The price of hops is regulated by the condition of the Eastern and European crop, and sometimes reaches \$1 per pound. Other seasons their abundance reduces the price to an extremely low point, never, however, below the cost of production, which may be estimated at eight to ten cents per pound. The average price realized by our hop growers during the past fifteen years may be placed at twenty to twenty-five cents, and the average yield per acre at 1,800 pounds. Hops are grown in the Willamette Valley, in Lewis, Thurston, Yakima, Snohomish, King and Pierce counties, Washington Territory, the industry reaching its highest development in the last two counties, where are located the celebrated fields of Puyallup Valley and White River Valley.

The famous Puyallup Valley lies in Pierce County, Washington Territory. Beginning at the Indian Reservation, it extends eastward a distance of fifteen miles, and has an average width of three miles, the total area amounting to forty-five square miles. Of this fully 16,000 acres are adapted to the culture of hops. Through the center of the valley flows the Puyallup River, direct from the icy glaciers of Mount Rainier, the foothills of the green Cascades hemming it in on either side and forming the ridges which enclose the valley. The soil is a deep, rich, black vegetable mould of great depth, the accumulations of years of washings of the soil and luxuriant vegetation of the Cascade Mountains. There is no subsoil whatever, the mould extending to a depth not yet ascertained. At one place the drill of an artesian well struck a cedar log at a depth exceeding one hundred feet, and wherever the river washes away its banks large trees are uncovered lying fifteen feet below the surface. On the farm of O. M. Annis large cedar stumps have thus been uncovered which present the appearance of having been cut with a sharp stone implement, the cut slanting upwards. These stumps are from ten to twelve feet below the surface, and above them grow great trees hundreds of years old. They speak to us of the primitive races who lived in intellectual darkness, and ages since disappeared in the eternal gloom of an unrecorded existence, leaving but here and there a faint indication of their former presence. No better idea of the richness and composition of this vegetable soil can be given than that of the old pioneer of the Willamette Valley, who referred with pride to the fact that the rich bottom lands upon which he had settled were composed of a "conglomerated mass of muckulated gloom." All kinds of cereals and vegetables produce in abundance, but the soil and climate seem to be especially adapted to the culture

of hops, to which the attention of the people is chiefly devoted. The roots, unretarded by any subsoil, penetrate to a great depth, and draw upwards an abundance of moisture even in the driest of seasons. Roots nine feet long have been exposed by the erosion of the river, and one fourteen feet in length is now on exhibition. The crop has never failed, nor have the vines or cones been attacked by lice or any form of disease, such as afflict the yards of Wisconsin, New York and Europe. The growers ascribe this exemption from scourge to the length of the growing season, the cool summer nights and the absence of those excessively hot summer days experienced elsewhere. It is their hope and belief that these favorable climatic conditions will constitute a perpetual barrier through which insect pests and disease will never break.

There are at least one hundred men engaged in growing hops in the valley, with a total area of 1,300 acres in hop vines. Land cultivated is valued at \$250 per acre, and uncleared and uncultivated land ranges from \$60 to \$100. Hop picking is done chiefly by Indians, who gather here in the picking season from reservations hundreds of miles distant. Fully three thousand of them came into the valley the present season. "They come," writes a prominent grower, "from far and near, some in wagons, some on horseback, a few on foot, but the greater number in canoes. They are of all conditions—the old and young, the blind and maimed, the workers and idlers—making a motley mass curious to look upon. They are from all parts of Puget Sound, from British Columbia, and even from the confines of Alaska. The furthestmost tribes come in their large canoes (made from the immense cedars of that region), so large that they dare and do venture to sea in them in their seal fishing season, manned with twenty men or more. The voyage to the hop yards is all by the inland channel and among the islands of Puget Sound. Oftentimes a month is occupied in making the trip, leisurely working their way, camping here and there to hunt or fish, as their inclination prompts. Wherever night overtakes them they are at home, and when they arrive at the hop fields a few hours suffice to construct their camps and be ready for work. When fairly settled down to it, they are inveterate and reliable workers, going to the hop field as soon as they can see to work, carrying their dinners with them, and remaining until pitch dark. Experts among them make as high as \$3 a day in some cases, but, taking the average, only about \$1.25 a day. The question of questions with the hop growers is, Will enough come? If so, will they arrive in time? From a supposed short supply of help timid growers become scared and begin to bid up and run after fresh arrivals. The Indians are quick to perceive the situation, and ready to profit by the anxiety of growers and drive the best bargain possible. They are masters of the situation, or think they are, and oftentimes there is much trouble and expense incurred from the scramble among growers to procure pickers. As the acreage has increased, however, the supply of labor has thus far been ample, so that there has never