

the ground; but beneath this mass of wood and shrub lies a soil of remarkable fertility.

It is often stated that it does not pay to clear timber land—that it costs more than the land is worth. This is an error when such land as is spoken of above is meant. Suppose, for example, that a settler has located a homestead of 160 acres on that character of land, and begins his work of clearing in August. It is usually possible on a windy day, in the dry time, to get a fire started which will run a good many rods in the green timber. This fire will kill and burn up most of the brush, and consume much of the rotten wood on the ground. It will also kill the green timber. We may suppose that the settler makes a preliminary burn on fifty acres. It might take a week to do this. A great many fires would have to be started, feeble ones encouraged, or the fire checked by counter burning if running in a direction not desired. In some places the brush would be simply burned off at the roots and not burned up. Any quantity of logs would be left half burned on the ground; but, on the whole, the burn would be ready without more trouble to be seeded. The best time for this is just before the autumn rains in October. Grass seed scattered in the ashes in the fall makes abundant pasturage for the succeeding year. Our settler thus has pasturage secured for a number of years. He wants to get land ready for cultivation. As soon as the preliminary fire is out he must go to work in the most eligible spot to gather up the brush and haul up the logs in piles to burn. He can scarcely get along without a yoke of oxen in this work. The large spruce trees which remain standing he can bore and burn down. He can bore from a dozen to twenty in a day. The hemlocks which remain standing he can easily burn out by piling brush and logs around their roots. The solid timber on the ground must be cut open by saws and rolled together to burn. There would still be left roots in the ground, but a large part of them, as well as the butts of the trees, would be reduced to ashes. If the settler is clearing on the side of a hill he can roll the lengths of the logs down as he cuts them off. An able-bodied man, with a yoke of oxen, can clear almost any acre of land in a month. If he takes advantage of a thin patch in the woods, such as always are to be found, he can clear double that amount. By spring—for in burning logs by piling them into a pit or rolling them into a little gully where there is a fire it takes no difference how wet they are—he will have from four to ten acres of land cleared, ready for the plow, and forty or fifty acres of grass for pasture. He will have been able, too, to rive out a few thousand spruce shakes and make a shanty for himself and family, and to put up a slight shelter for his cows and oxen.

Suppose that he has ready only four acres of land for cultivation. One of these acres will raise all the vegetables his family needs for a year; two acres he can sow with carrots, which will make excellent feed for his stock, and part of which he can sell, if he be near market, at good profit. The other acre he can sow to oats, which he will cut for hay; yet if he has so much pasture and a supply of roots for winter feed he will need little hay.

He would in a short time burn up all the brush and rotten logs on some acre or two next his clearing, without bringing down the solid timber, and sow it to wheat. This he could cut with a sickle for his chickens. The second summer he would, perhaps, work some for his neighbors, to get some ready money. If he came with money enough to buy cows and hogs, he could begin at once making butter and fattening hogs. If he were not thus prepared he could, undoubtedly, get hold of several calves, and in a few years work into a dairy. Cattle and goats would tramp and eat down any fresh brush that began to grow on his burnt land. The dead timber would gradually rot away, and he could constantly increase his wholly cleared land. In ten years he could have every acre of his quarter section either wholly cleared or in productive pasture. He could have an orchard in bearing and comfortable buildings. Work can nearly always be had by an industrious man, to aid in the support of himself and family while clearing his land and securing title to his homestead.

If one goes into the woods in this way—and this is no imaginary picture, but what has been done—a few years' labor will make him a home and productive farm. It is not true that it costs \$50 an acre to clear heavily timbered land if one settles on the land and does the work himself; but even if it were true, the land is worth \$50 an acre, and will yield an interest of fully 12½ per cent. on the investment. Any one who has nerve and muscle, industry and sufficient steadiness of purpose to work at the same place a dozen years, has as good a thing as he wants in the woods of Western Oregon.

CLATSOP COUNTY.

This county occupies the extreme northwest corner of Oregon, its northern border being the waters of the mighty Columbia, and its western the rolling breakers of the Pacific; east and south lie Columbia and Tillamook. The county at present, so far as population and property are concerned, consists chiefly of the city of Astoria, a thriving business place of 8,000 people, lying on the south bank of the Columbia, about ten miles above the bar at the river's mouth. Here was made the first settlement in the whole region tributary to the Columbia River. In 1811 the Pacific Fur Company established a trading post and general headquarters for the immense business they expected to transact on the Pacific Coast, and the place was named Astoria in honor of John Jacob Astor, the founder and financial backer of the enterprise. A few years later it became the property of the Hudson's Bay Company. In 1848 a town began to spring up and a custom house was established. In 1866 the canning of salmon began on the river, and from that time Astoria grew rapidly. Twenty-four of the thirty-eight canneries now on the river are located there, and the others are tributary to that city. There were packed during the season of 1884 650,000 cases, or about 1,800,000 fish, of an average weight of twenty pounds each. In catching the salmon some 1,700 boats were employed, with two men in each, and more than \$1,500,000 were paid out to fisher-