

ed land, of which one hundred and twenty thousand acres are under actual cultivation. The surface of the western half of the county consists of little valleys, lying along the water courses, between which lie rolling prairies. Along the Willamette, for several miles inland, is a continuous stretch of almost level valley land, with a steady trend toward the river. Across the northeastern corner stretches a high range of hills, popularly known as the Eola hills, their summits crowned with fields of grain. The western half of the county is hilly, rising gradually to the low summit of the Coast range, numerous valleys penetrating far into their midst. The general nature of the topography is shown in the engraving on page 634. From the summit of Mt. Pisgah, near Dallas, it looks across the valley and hills, to the snow-crowned peaks of the Cascade range.

The idea must not be obtained that only the valley and prairie lands are arable, since it is a fact that, in some respects, the hill lands make the best farms. Even the higher slopes of the mountains, whose sides are not so rugged and precipitous as those of the Cascades, possess a fertile soil, capable of profitable cultivation when cleared of timber. The fact is, that but a comparatively small portion of the county is unfit for eventual cultivation, while by far the greater portion is either already in a producing state, or can easily be so rendered. Each section has its advantages. The valley and prairie lands, of course, give the farmer a greater proportion of cultivable soil, better opportunities for orchards, and, on the rich bottoms along the streams, a soil well adapted to the culture of hops. The soil of the valleys and prairies is rich, dark loam, of almost even and unbroken fertility. The hill lands possess a reddish soil, formed by the decomposition of lava, and of the

vegetable matter which has covered them for ages. Though the early settlers supposed that the valley lands were the best, and though for years the value of the hill lands was not appreciated, the fact is now generally recognized, that the soil of the hills is remarkably fertile, and produces the finest and hardest wheat of the Willamette valley, the most sought after by millers for their best brands of flour. The hill farmer, also, has the advantage of grazing for his stock on unoccupied, or partially cleared, land, since, wherever the brush is cut away, a spontaneous growth of grass and white clover springs up at once. Taken all together, then, the valleys, prairies and hills of Polk county form one vast area of arable soil, whose yellow fields stretch, in harvest time, from horizon to horizon.

In regard to the production of cereals, there is, practically, no difference between the different classes of land, all of them yielding enormously. What differences are observable are of a local nature, or consist in methods of cultivation, more than in quality of soil. At the office of Wright & Ellis, in Dallas, I was shown some magnificent samples of wheat of this year's crop. One stool in particular was a marvel in its way. It contained seventy heads, and upon counting the grains in a head of average size, there were found to be seventy-six. This gave a total of more than five thousand grains of wheat from one seed. The good old "hundred fold," of the bible, was here made five thousand fold. This was, of course, an exceptionally large stool, others taken from the field showing about thirty heads. The harvest of the present year has not sufficiently progressed to give accurate figures of the yield per acre; but that it is equal, if not superior, to that of last season, is evident. The total crop of 1887 is estimated at one million two hundred and