

and will come under the general description given above. This stretch of country has a great many gold mines which are being worked with profit, principally placer. Without stopping for further observation, I must hasten on to Rock Point, a little hamlet, on the north bank of Rogue river just in the northwest corner of the valley of that name. It contains a store, saloon, hotel, school house, blacksmith shop, and is a station on the Overland stage line. The river here is a roaring, rushing torrent, deep, clear as crystal and filled with a plentiful supply of trout, and in the spring time with salmon. Its turbulent channel is here spanned by a bridge, though the one crossed by the stage is about two miles farther up the stream, and is a very substantial structure, having crossed which, we are fairly into

ROGUE RIVER VALLEY,

which I conceive to be the most pleasant and desirable one on the Pacific Coast. It has an altitude of from one to two thousand feet above tide water. It seems to be peculiarly adapted to the highest perfection of the apple, the pear, the peach, the plum, apricot, quince, grape, the blackberry, strawberry and raspberry. Almonds are produced in abundance and the fig tree grows well, but does not produce abundantly. The climate is remarkably healthful, and the high mountains surrounding it give off grateful breezes which temper the summer's heat. Rogue River valley is bounded on the north by the Rogue River mountains, east by the Cascades, south by the Siskiyou and west by the Coast Range. Its greatest length is from south east to north west, and the distance about forty miles. It is irregular in shape but has an average width of about eight miles, though in places it is much wider. The river which gives name to the valley, rises among the snow peaks of the Cascade mountains, and flowing west through the north side of the valley finds its way, after a tortuous course through deep dark canyons and overhanging forests, to the ocean. I venture the assertion that no valley on earth, in its natural state, presents so many delightfully pleasant features of landscape as does this one, or whose surrounding mountains afford more of the grand, rugged, picturesque and sublime, as do the Cascade and Siskiyou mountains, that bound the valley on the east and south. Jacksonville, the county seat of Jackson county, occupies a cove at the junction of the Siskiyou and Coast range of mountains, eleven miles south from Rock point. Without describing the delightful ride between these points, through the groves of fir, pine, oak and maple, I will invite the reader through the streets of Jacksonville, and to the summit of the hill at the foot of which it stands. We now find ourselves between five hundred and a thousand feet above the town, and with a magnificent prospect spread out below us. Immediately at our feet, nestling in its little mountain cove, shaded with oak and maple, whose leaves are tinted with the bright colors of autumn, stands the town through which we have just passed. Its neat and tasteful residences, its school houses and church spires, and its solid buildings of brick, bespeak wealth and prosperity, and a population of nearly 1,000 people. Its hillsides and ravines furnish an index to its history as a mining town. Hundreds of thousands of dollars have been taken from the earth, and yet its gravel beds are not allowed to rest undisturbed, though the attention of the people has long since

been directed to other pursuits, and now agriculture forms the chief occupation of the valley, though mining is still carried on to a considerable extent, and but a few miles away is worked the heaviest mining machinery in the state. A great variety of precious metals have been found, and the prospector remaineth not idle during the winter months. Looking now to the north and northeast, the valley spreads out in all its beauty. Bright fields of stubble and groves of oak and fir blend in fine relief. Farm houses and barns, orchards and vineyards, dot the level plain as far as the eye can distinguish these smaller objects. The course of numberless streams are easily traced by their sinuous lines of maple, alder and ash, while in the distance rise the noble Cascades, already whitened by approaching winter, and Mount McLaughlin capped with eternal snow, its symmetrical form towering 10,000 feet above the sea, and standing as a monarch of the giants that modestly crowd about his foot. To the north east are other shining peaks piercing the sky and dimly seen because near 100 miles away. These are the rough jutting points that stand as sentinels guarding that mystic spot, Crater Lake. The Table rocks stand as natural wonders in this panorama to the north, with a history clustering about them which I have no time here to chronicle. To see all that may be found of interest, one should spend a summer here and explore the hundreds of nooks, crannies and coves that reach out into the surrounding mountains, and the little valleys that are hid away from the casual observer. Every home has its orchard and vineyard, its grain field, its garden and its "woods pasture." I know of no spot where the people live so independently and enjoy such advantages of climate and soil. Seventeen miles southeast from Jacksonville is the town of Ashland, by far the handsomest village in the state. It has a thousand inhabitants, is growing rapidly, and presents advantages which are sure to build up here one of the chief towns south of the Willamette valley. Ashland has two drug stores, two hardware establishments, four general merchandise establishments, two or three minor stores, two hotels, large and popular flouring mill, a large woolen factory, two large cabinet factories, marble works, one newspaper, two fine church buildings, an excellent college, and a fine public school, but no saloon. It is situated directly on the line of the O. & C. R. R. on a fine mountain stream that furnishes abundance of pure, cold, snow water for all purposes, manufacturing and otherwise. The town is more than usually attractive. The lots are large, and nearly every lot has its orchard, its garden, and ornamental shrubs and flowers. The soil is of granite and consequently neither mud nor dust is produced to a troublesome extent. The valley at this point is not more than a mile wide, but the mountains to the north have but little timber, and, possessing an excellent soil are farmed half way to their summits. To the south the Siskiyou mountains rise abruptly and are clothed with magnificent forests. Besides the fruit of this valley, there is no part of the coast that can outdo it in the quality or quantity of its vegetables, its wheat, rye, oats and barley. The mountains furnish an abundance of sugar and yellow pine, from which the finest lumber in the world is made. There also abounds in the streams the festive trout, the joy of the angler, and among the woods and canyons bear, deer, elk, panther, cougar, wild cats, etc., so that

the searcher for game and pleasure need not go away dissatisfied. Ten miles farther up the valley is a cluster of soda springs, already a place of great resort, and which promises a wide fame when the R. R. comes along to enable the outside world to reach them. Ashland is the last town in Oregon as you go southward, the first reached from California. Following the proposed line of the railroad, from Ashland to the state line it is about 25 miles, though on a direct course it is only fourteen. Leaving Ashland our course runs to the south east for eight miles where we commence the ascent of the Siskiyou mountains; though steep the distance is not great, and when the summit is reached a magnificent landscape greets the eye. The Klamath and Shasta valleys are spread out before us, and Mount Shasta 14,440 feet high, seems almost within a stone's throw, though sixty miles distant. Its eternal snow, its glaciers and pinnacles of ice shine like polished steel in the bright sunshine, and all other objects seem dwindled to insignificance. From the summit of the Siskiyou to the California line is about two miles, and we soon find ourselves whirling along toward Yreka, the first town of significance after leaving Oregon. C. B. WATSON.

PROBABLE IRON MINES AND INDUSTRIES OF THE PUGET SOUND BASIN.

BY REV. G. H. ATKINSON.

COAL AND AN INDEX OF IRON.

Geologists inform us that about two per cent. of the per oxide of iron is found in natural soils. This per oxide becomes a protoxide by the action of acidulated water, but not by water alone. Decayed vegetation in swamps furnishes a ligneous acid, which acts upon the adjacent soils, and brings out a thin reddish film or iron scum that is often seen floating on the pools in swampy places. As this scum increases it settles and forms a deposit of light porous protoxide of iron. This is the latest form of bog iron ore. It is in constant process of growth now in bogs and swamps on a small scale. It is found in extensive tracts like that discovered near Port Townsend.

This ore has been reduced, tested and found valuable. When mixed with older ores from other beds like those on Takada and Lopes Islands, it is malleable when reduced by itself.

Bog ores are found in the Puyallup Valley and its signs appear in other valleys that border the Sound.

Older and richer iron ores have been discovered in the range cut through by the Skagit river, but the finest exposed masses of iron ore are reported from Snoqualmie pass, near the railroad survey. If there is no error in the estimated extent, judging by the samples, the owners will have a life work in that mine.

INDEX OF COAL.

But the coal beds, which are traceable along the whole range of the foot hills of the Cascades suggest, on the principle above stated, abundance of iron also. It is the belief of experts that beds of iron will be found in the vicinity of the coal. At Columbia City veins of iron ore are found a few score feet above the lignites coal veins. It is a loose, red ore, similar to that found near Oswego. Its position in both localities seems strange and not in perfect accord with the theory.