

These wells would hardly be noticed by the traveler, unless his attention was called to them. Nothing marks their presence except the circle of rank grass around them. When standing on the bank of one of these curious springs you look on a still surface of water, perhaps six or seven feet across, and nearly round, no current disturbs it; it resembles a well more than a natural spring, and you look around to see the dirt which was taken therefrom when the well was dug. The water, which is slightly brackish, rises to the surface, seeping off through the loose, sandy loam soil of the valley. No bottom has been found to these wells, and they have been sounded to a great depth. Undoubtedly they are the craters of volcanoes, long since extinct, but which at one time threw up this vast body of lava of which the soil of Cedar Pass is largely composed. The whole face of the country bears evidence of the mighty change which has been taking place for centuries. Lava in hard, rough blocks; lava decomposed and powdered; huge blocks of granite and sandstone in the foot-hills, broken, shattered and thrown around in wild confusion, are some of the signs indicative of an age when desolation reigned supreme. The valley in which the wells are situated is about five miles long by three wide, covered with a luxuriant growth of grass. It is excellent farming land, capable of producing luxuriant crops of vegetables, grain or grass. The low hills afford an extensive "range" and good grazing. The transition from the parched desert and barren upland to these green and well-watered valleys is so sudden that it seems like the work of magic. One moment in the midst of desolation, the next in the midst of the green valleys redolent with the aroma of the countless flowers which deck their breasts.

Rich mineral discoveries have been made about 35 or 40 miles southeast of Wells—east of Clover Valley—in the Johnson & Latham district. The veins are reported large, well-defined, and rich in silver, copper and lead; large deposits of iron ore have also been found. The district is well supplied with wood and water, and easy of access from the railroad. A stage runs through the district, extending 100 miles south to Shellburn, near the old overland stage road, in the Shellcreek mining district. A stage line is also in operation to the Bull Run district.

Stock-raising occupies the attention of

most of the settlers about the Wells, and to the northward.

Leaving Humboldt Wells we proceed down the valley for a few miles, when we enter the main valley of the Humboldt, one of the richest agricultural and grazing valleys to be found in the State. The soil is a deep, black loam, moist enough for all purposes without irrigation, from 15 inches to two feet deep. This portion of the Humboldt extends for about 80 miles in length, with an average width of ten miles, nearly every acre included therein being of quality described. From Osino Canyon to the head-waters of the valley is occupied by settlers who have taken up hay ranches and stock ranges. The river abounds in fish and the foot-hills with deer and other game.

THE HUMBOLDT RIVER rises in the Humboldt Mountains, northwest of Cedar Pass, and courses westerly for about 250 miles, when it bends to the south, emptying into Humboldt Lake, about 50 miles from the Big Bend. It is a rapid stream for most of the distance, possessing few fords or convenient places for crossing. The railroad follows down its northern bank until it reaches Twelve-mile Canyon, about 16 miles west of Carlin. Here it crosses to the south side of the river and continues about 170 miles, when it crosses again and leaves the river, skirting the foot-hills in full view of the river and lake.

The main stream has many varieties of fish, and at certain seasons of the year its waters are a great resort for wild ducks and geese. Where it enters the lake the volume of water is much less than it is 100 miles above, owing to the aridity of the soil through which it passes. Of the valleys bordering it we shall speak separately, as each division is totally distinct in its general features. The "old emigrant road" can be distinctly traced along the river from its head to its source.

From Wells, continuing down grade, it is 7.5 miles to

Tulasco—a small side-track, five miles from

Bishop's—This is another unimportant side-track, where Bishop's Valley unites with the Humboldt. This valley is 70 miles long, with an average width of five miles. It is very fertile, being watered by Bishop's Creek, which rises in the Humboldt Mountains, near Humboldt Canyon, about 70 miles to the northeast, and winds through the valley.