

dig through the snow with better success in searching for food. The native hay is excellent, but lucern is now extensively cultivated. This is cropped three or four times a year, and yields from eight to ten tons to the acre. Sheep raising has already made a number of men rich. An instance of this is Patrick Hailey, who began a few years ago with almost nothing, and now counts his sheep by the thousand, and has a comfortable amount placed to his credit at the bank. Others might be mentioned, but it is sufficient to say that every man who has given his sheep proper attention has found the business immensely profitable. Butter making on a large scale has just been commenced by the starting, near Eagle Rock, of a creamery, supplied with the most approved machinery and all needed facilities. About 100 cows are kept, and the butter finds a ready sale at forty cents per pound.

MINING.

From where Snake River debouches from the mountains it cuts its way through a continuous bed of gravel, from ten to fifteen feet deep, for many miles of its course. In fact, nearly the whole valley is one immense bed of gravel a few feet beneath the top soil, throughout which fine flour gold is quite evenly distributed. Above the ground produces abundant crops, below it holds in its embrace the precious metal. It is estimated that a strip two miles wide and 300 long, containing 348,000 acres, will pay \$1,600 to the acre, or a total of \$614,400,000, and it is believed that workable ground extends from the lower canyon to the headwaters of the river, a distance of 800 miles. For some years claims have been worked near Shoshone Falls, where one gravel claim was recently sold for \$75,000 to an incorporated company, with a capital stock of \$200,000, upon which amount it is paying handsome dividends. Further up the stream mining was neglected until the past season, when a new departure was made. Early last spring three men, named Edwards, Quirk and Quayle, left the bars near the falls and located three claims of twenty acres each, the amount allowed by law, above Eagle Rock, and convenient to the Snake River Water Company's canal. In digging ditches and getting ready to work they have necessarily been to a considerable expense not required another year, yet during the past season they took out 242 ounces of gold, about \$4,000. Another year they expect to realize \$2,500 each. Scarcely half an acre was worked over to produce the above result. The process they employed is one of their own invention and is simplicity itself. A ground sluice carries the dirt into a sluice box, passing over an iron grizzly to the dump. All that passes through the grizzly drops into another sluice, and this divides into several branches all carpeted with burlap, over which the water passes slowly, allowing the gold to settle. The burlaps are periodically washed out into tubs prepared for that purpose. At Bonanza bar, near the falls, machinery that cost thousands of dollars has been cast aside for this simple contrivance, and dividends have been increased by the change. There is no patent on the process, which is open to the free use of all. The success of these men has attracted much attention, and hundreds

of acres have been taken up. The prospect that prosperous mining camps will spring up along the course of Snake River is promising, and that they will be permanent is assured by the fact that 10,000 men could not work out the ground in fifty years.

Two companies have been organized to work on a large scale—one in Chicago and the other at St. Paul. The latter has expended \$2,000 on a ditch to tap the main canal, and will begin active operations in the spring. They sent out an expert who has had practical experience in mining light gold, whose report was sufficiently encouraging to induce them to undertake the enterprise. The gravel beds as they now lie, including boulders, rocks and earth, contain some twenty-five cents to the cubic yard. The quantity of gravel that can be worked depends upon the supply of water and the number of machines employed. One machine will gather about \$45 per day if properly attended to.

In Southeastern Idaho quartz mining has been little developed. Many prospectors have sought in the mountains the source of the gold found in the valley, but as yet without success. Some float quartz recently picked up near the Tetons, which assayed from \$10,000 to \$20,000, indicates the presence of the rich ledges that have scattered their treasure over such a vast region of country. Over the low range of mountains bordering the valley on the east numbers of quartz claims have been located, but none of them developed. On the west side of the river, fifty miles distant, is Little Lost River, an exceedingly promising mining district, in which the first claim was located last spring. The rock, from several of the leads, assays well up in the hundreds. The Daisy Black has about 1,000 tons on the dump, and has made arrangements for erecting a smelter in the spring. The Alice, Ingersoll, Bennington and Eagle Rock are promising locations partially developed. Big Lost River, still further west, shows some good ledges, the principal attraction at present being a huge lead of copper.

RAILROADS.

The Utah & Northern narrow gauge line, belonging to the Union Pacific, runs north, through Eastern Idaho, from Ogden to the Northern Pacific at Garrison, and the Oregon Short Line, belonging to the same company, passes westward through the valley of Snake River, from Granger, Wyoming, to Caldwell, south of Boise City. It will be extended this year to a connection with the O. R. & N. Co. at Burnt River and form a through line to the Pacific. There is a prospect of yet other roads in that region, especially a branch line to the National Park of the Yellowstone. Two great companies have had surveyors in the field the past season seeking for east and west routes. The C., B. & Q., Central Pacific and Denver & Rio Grande are all feeling in this direction.

EAGLE ROCK.

The centre of the most considerable settlements in the valley is Eagle Rock, where are the extensive machine shops of the Utah & Northern road. During the past season nearly 500 families have settled within twenty-five miles of the town, nearly doubling the population living