

spring by two Norwegians, and their discoveries were astonishing. Shortly before the coming of high water, in May, they removed the ice from a section of the river, uncovering the bed about twenty by eighteen feet. The ice was three feet in thickness, and the task was Herculean. They then carried fuel from a canyon two miles distant and built fires in the hole until they had thawed out several inches of the bottom in a space about eleven by fourteen feet. They scraped up the thawed gravel and washed out over \$2,100.00 worth of nuggets, when they were stopped by high water and the opening of the summer. The job occupied about two weeks' time. There are sections of the creek where the channel bed can be uncovered by diverting the water, but on account of the frozen condition of the banks at all seasons, it will always be difficult. There were about one hundred and twenty miners scattered along the river last season for a distance of sixty or seventy miles. The miners there get no mail or any information from the outside world, except when the steamers of the Alaska Commercial Company make their annual trip up the Yukon to the fort to take in supplies and collect furs. The fort is eighteen hundred miles above the mouth of the river, and only two or three steamers reach it during the summer. The great drawback to the successful prosecution of mining in the Yukon country is the long and extremely cold winter, limiting the time when it is possible to work the mines to the three months beginning the 1st of June and ending the 1st of September. During the summer we have almost continual daylight, and it is light enough to work every moment of the time between June and September, and a company working a large force could, by dividing it into reliefs, prosecute the work during that time. But at present there are no companies on the ground, and all operations are conducted individually. No attention is paid to diggings that would pay enormously in a favorable climate, and nothing but the cream of the richest is or can be taken by present methods.

CLIMATE OF THE PACIFIC NORTHWEST.—Last July the senate passed a resolution directing the transmission of reports prepared under the direction of chief signal service officer upon the climate and climatic conditions of Oregon and Washington. These reports, together with illustrative charts and letters from General Greeley, have recently been published, and in view of the immigration to the northwest will be found of general interest. The rainfall on the Pacific coast is the heaviest in the United States, ranging from seventy to one hundred and seven inches annually, but this enormous fall covers only six per cent. of Oregon and Washington. On the other hand, the area where less than ten inches fall is less than five per cent. of the whole. Wheat can be grown in nine-tenths of these two states without irrigation, owing to equable rainfall. Agricultural operations are more fruitful with smaller rainfall than in some sections of other states with considerable larger precipitation. Remarkably equable temperature conditions are also obtained, the entire range of the mean annual temperature over this territory from forty-five and one-half degrees at Fort Colville, in Northeastern Washington, to fifty-four degrees at Ashland, Oregon, is three hundred miles of latitude. Along the Coast range the temperature in summer varies only slightly, from fifty-six at Port Angeles, Washington, to fifty-six and one-half at Port Stevens, Oregon. During the winter months the mean temperature of more than half these states is above the freezing point, and on the Coast ranges between forty and forty-five degrees. General Greeley says: To summarize, Oregon and Washington are favored with a climate of unusual mildness and salubrity. While the immediate coast regions have very heavy

rainfalls, yet such rains occur during the winter months, December to February, and in all cases the wet season gives place gradually to dry seasons during July and August. While a preponderating amount of rainfall is during the winter, yet spring, early summer and late fall are marked by moderate rains at not infrequent intervals. These climatic conditions favor, to a marked extent, the growth of most cereals and other important staples.

MINERAL OF TEXADA ISLAND.—Dr. Bredemeyer, Ph.D., of Vancouver, is an assayer and mining expert whose opinion is held in high esteem by mining men. He says he has made over one hundred and twenty assays of ore from Texada island, four or five of which are really first class, particularly the ore from the Golden Slipper, Vancouver, Blue Bell, Victoria and Eureka claims. The ores go from \$12.00 to \$600.00 per ton, and contain nothing of value but gold, all in pyrites. In the specimens examined there has been no free gold to be seen, though they say it has been found in very small specimens in the new district of the lake. The ores from Texada, Dr. Bredemeyer says, should be reduced by either roasting or the Russell leaching process. By the first the cost would be from \$9.00 to \$10.00 per ton, while by the leaching process the cost would be \$6.00 to \$7.50. By the Russell process the extraction of gold would be about five per cent. higher than by roasting. Dr. Bredemeyer is of the opinion that as the Texada prospectors get down from one hundred to one hundred and fifty feet, the find will turn out to be a lead and silver ledge. All the indications point in this direction, and a four-foot vein of lead has already been discovered. Surface croppings show thirty to forty per cent. in lead, and six to twenty ounces in silver to the ton. Younge's pay streak contains thirty-four per cent. in iron and about \$12.00 gold to the ton, so it would seem that almost every metal, both base and precious, can be found on the island, and everything can be utilized. Gold, silver, lead and iron having been shown to have an existence on the island, it should be the duty of home capital to take Texada in hand, and keep the profits arising from her mineral richness in the province, instead of allowing everything, like the iron, to be shipped to the United States and there made up.—*Colonist*.

UNION COUNTY MINES.—The mines of Cornucopia, Union county, Oregon, are in a very promising condition this spring. Twenty-two men were employed during the winter prospecting the Red Jacket mine. The adit started last fall is a little over five hundred feet, and will be extended about one hundred and twenty-five feet more before it is expected the main ledge will be struck. During the process of work on this tunnel, a number of small veins of ore were encountered, the most extensive being about one foot in width. Three shifts are kept at work, and the adit will be pushed forward to completion as rapidly as possible. In the main workings of the mine, some fifteen hundred feet of drift and tunnel have been run. The ore vein varies in width from three to seven feet, a good proportion of which is free milling, returning an average value of \$900.00 per ton, while that of all the ore is close to \$100.00. Five raises have been started on the ore body, and a low estimate of the amount of ore in sight places it at one thousand tons. The mill of the company was started Monday, and the twenty stamps will be kept constantly at work for months to come, unless some unforeseen accident intervenes. At Sanger, in that county, there were fifty men employed during the winter, and work, both at the mines and mill, has been vigorously pushed. The mine at Sanger is on a good paying basis, and the monthly returns must prove extremely satisfactory to the owners.