

irrigation, as on the small supply of water. The river this year was remarkably full: here, high up the valley, it reached to the horse's belly, and was about fifteen yards wide, and rapid; lower down it becomes smaller and smaller, and is generally quite lost, as happened during one period of thirty years, so that not a drop entered the sea. The inhabitants watch a storm over the Cordillera with great interest; as one good fall of snow provides them with water for the ensuing year. This is of infinitely more consequence than rain in the lower country. Rain, as often as it falls, which is about once in every two or three years, is a great advantage, because the cattle and mules can for some time afterward find a little pasture on the mountains. But without snow on the Andes, desolation extends throughout the valley. It is on record that three times nearly all the inhabitants have been obliged to emigrate to the south. This year there was plenty of water, and every man irrigated his ground as much as he chose; but it has frequently been necessary to post soldiers at the sluices, to see that each estate took only its proper allowance during so many hours in the week. The valley is said to contain 12,000 souls, but its produce is sufficient only for three months in the year; the rest of the supply being drawn from Valparaiso and the south. Before the discovery of the famous silver mines of Chanuncillo, Copiapó was in a rapid state of decay; but now it is in a very thriving condition; and the town, which was completely overthrown by an earthquake, has been rebuilt.

The valley of Copiapó, forming a mere ribbon of green in a desert, runs in a very southerly direction; so that it is of considerable length to its source in the Cordillera. The valleys of Guasco and Copiapó may both be considered as long narrow islands, separated from the rest of Chile by deserts of rock instead of by salt water. Northward of these there is one other very miserable valley, called Paposo, which contains about two hundred souls; and then there extends the real desert of Atacama—a barrier far worse than the most turbulent ocean. After staying a few days at Potrero Seco,