

vantageously. They have bunkers, usually holding two thousand tons or more; their machinery is immense and possessed of great power; everything moves regularly and systematically, So true is this, and so safe are the guards thrown about the men, that it may be stated that during the past two years not one fatal accident has occurred in the mines, and only four slight accidents; and during this time over six hundred thousand tons of coal were taken out.

Newcastle, the longest worked mine, is twenty-one miles from Seattle by rail. Irregular operations began, and were carried on from 1867 to 1871, though no coal was shipped out of the territory. In the latter year, a number of small vessels were loaded, in all four thousand nine hundred and eighteen tons being shipped to San Francisco. This was increased to fourteen thousand eight hundred and thirty tons in 1872. In 1873, thirteen thousand five hundred and seventy-two tons were shipped; but in 1874, only nine thousand and twenty-seven tons. Up to this time, operations had been hampered by lack of means and of facilities. The coal was transported in a most laborious, expensive manner, being carried over three different lines of road and two lakes, small boats, strap-iron tramways and horse power being used. In 1875, better arrangements were made; small locomotives were obtained, a fine wharf in town, etc., and as a result, the shipments rose to fifty-six thousand eight hundred and eighty-seven tons, which were further increased to seventy-seven thousand eight hundred and forty-nine tons the following year, and to ninety-five thousand eight hundred and sixty-eight tons in 1877. By that time, Seattle had become one of the great factors in the coast coal trade, and chiefly so through the instrumentality of the Newcastle mine. During the past ten years the mine has had its ups and downs; has had two long and terrible fires; has suffered from depressions in trade and labor troubles; and has fluctuated violently in its output, going as low as ninety-four thousand three hundred and seventy-five tons in 1886, and as high as one hundred and ninety thousand nine hundred and one tons in 1883. The entire yield of the mine, to the beginning of the year 1888, was one million seven hundred and forty thousand tons. The mine at Newcastle belongs to the Seattle Coal & Transportation Company, which, in turn, is controlled by the Oregon Improvement Company.

The Cedar River Coal Company owns, at Cedar Mountain, seven hundred acres. The coal is lignite, like that at Newcastle. It began mining in August, 1884, on a small scale, and put into the market one thousand seven hundred and thirty-two tons of coal by the close of the year. The year following, the product rose to twenty thousand eight hundred and

eighty-six tons, and fell again in 1886 to twenty thousand seven hundred and eighty-eight tons. In 1887, thirty-nine thousand six hundred and ninety-three tons were mined. The total product to the beginning of the present year was eighty-nine thousand two hundred and twenty-one tons. The output of 1888, should present anticipations be realized, will be fifty thousand tons. One vein only, ten feet in thickness, is being worked. There are other veins, but undeveloped. At Cedar Mountain, one hundred men are employed, and in the town there are two hundred inhabitants. The mine is nineteen miles from Seattle. Sales from the town bunkers are about twenty-five per cent. of the entire product, the remaining seventy-five per cent. finding ready market in San Francisco. Samuel Blair is president, Lawrence Colman secretary, and J. M. Colman manager.

The Black Diamond mine belongs to the famous Black Diamond Company, of San Francisco, of which P. B. Cornwall is president and principal stockholder. The lands include two thousand four hundred acres, and openings have been made at two places, two miles apart. Twelve-hundred-ton bunkers have been built at each place. Two hundred men are employed, and in the town are five hundred people. The first coal was mined in March, 1885, and by the close of the year forty-three thousand eight hundred and sixty-eight tons were taken out, which quantity was increased to seventy-two thousand seven hundred and nine tons in 1886, to ninety-six thousand five hundred and seventy tons in 1887, and undoubtedly will be increased to one hundred thousand tons in 1888. This coal is semi-bituminous. It is good house coal, and superior for steam. Sales in Seattle amount to about fifteen hundred tons per month, chiefly to tug boats. San Francisco takes the remainder of the product. The total yield to January 1, 1888, was two hundred and thirteen thousand and eighty-seven tons. The mine is located between Cedar and Green rivers, thirty miles, by rail, from Seattle.

Franklin is located on Green river, thirty-four miles from Seattle, and the mine at that place belongs to the Oregon Improvement Company. Being most remote, it was the last of the number to undergo the operation of opening. Work was begun in it in the fall of 1885, and during the last quarter of the year seven thousand eight hundred and fifty-four tons were taken out. In 1886, twenty-one thousand six hundred and ninety-eight tons were mined; and in 1887, eighty-nine thousand seven hundred and five tons. The total output prior to 1888 was one hundred and nineteen thousand two hundred and fifty-seven tons. This coal is semi-bituminous, and is a fine article for domestic use, always selling higher than the other coals. The company has eleven hun-