

This total furnished by the Government is considered too low by Mr. Young, who places it at \$6,000,000. The average number of men employed each year has been about 600. This gives a per capita yield of one thousand dollars.

The small yield recorded in 1908 is attributable to the fact that one of the three largest operating companies did not operate, and the remaining two devoted part of their time to improving their water systems.

Gold was discovered in Atlin first by two partners, Fritz Miller, a German, and Kenneth MacLaren, a Canadian. Six miles from the mouth of Pine Creek they made their discovery. This area has proved the richest in the district. Before autumn, three thousand men had found their way to the camp. It is noteworthy that all the creeks that have been gold producers were staked during this first summer. Only four hundred people wintered in Atlin, but in the following spring there were thousands of new arrivals.

At first there was uncertainty as to whether Atlin was in British Columbia or the Northwest Territories. A placer claim in the latter was 250 feet, and in British Columbia 100 feet. When it was established that Atlin was in British Columbia, the 250-foot claims were "jumped" and abundant material was prepared for years of litigation.

More trouble ensued when, in 1899, the B. C. Government passed an amendment to the Placer Act, excluding all who were not British subjects from holding claims. Although this "Alien Bill" was disallowed within a year, much harm was done. Hundreds of aliens left the camp; experienced miners became scarce, and capital was withdrawn and has ever since been shy.

At first all disputes had to be referred to Victoria; but in 1899 a Special Commissioner was sent to Atlin. Later, a Supreme Court judge visited Atlin each summer, and in 1904 Atlin was made a county for judicial purposes. After the first few years the Gold Commissioner was empowered to adjudicate upon many mining matters.

Gold-Bearing Creeks.

Practically all the placer gold of Atlin, except that from McKee Creek, has been derived from the Pine Creek valley, which is a wide valley extending some twenty-five miles eastward of Atlin Lake, and flanked to north and south by low ranges. The valley is drained by Surprise Lake and Pine Creek with their tributaries.

Geological Formation.

In 1899 Mr. J. C. Gwillim, then of the Geological Survey, made a log and compass traverse of the lakes, and a paced survey of the surrounding country. In his excellent report he shows that the gold series consists of magnesite, serpentine, pindolite, and actinolite slate. Intrusions of granite cut this series off on the north; to the south are quartzites, slates, and lime-stones. Most of the gold has been found in the gold series, a little in the slates, and almost none in the granite.

Practically no work has been done by the Survey since 1899. Geological investigation of the old water courses would be of great assistance to the miners. There have been several runs of gold; but the richest and most widespread occurs in the "old yellow deposit" of pre-glacial origin. At first, blue gravel was found overlying the yellow; but as work advanced on the benches the blue gravel disappeared, leaving only the yellow. The average value of the gold is twenty dollars an ounce.

Relative Value of Creeks.

The leading creeks in order of production, have been Pine, Spruce, and Boulder. In 1899 Pine Creek paid royalties on \$276,564; Spruce Creek, \$45,405; and Boulder, \$48,000. In 1904 the figures were: Pine, \$107,318; Spruce, \$101,557; and Boulder, \$107,906. In 1908 returns showed: Pine, \$46,719; Spruce, \$41,235; Boulder, \$15,200.

From Pine Creek the bulk of the gold has been won by companies; from Spruce Creek by individuals and partnerships.

For the first three years, 1898, 1899, and 1900, ordinary placer methods were employed. Especially for two and a half miles on Spruce Creek, Chinese pumps, water-wheels, drains, ditches, sluice boxes, and wing-dams crowded each other. Pick and shovel worked with good results.

Size of Placer Creek Claim.

The 100-foot claims soon proved too small to mine and stack tailings upon. So in 1901 the size of the placer claim was made 250 feet square. In 1906 the Placer Act was amended to make the width of the claim from base to base of the hill and 250 feet in the direction of the stream. An amendment in 1908 made the placer claim 1,000 feet wide and 250 feet in the direction of the stream.

In the years 1899, 1900, and 1901 two hundred and fifty-eight hydraulic leases were issued. Many of these conflicted with placer rights. During the last five years the Government has enforced rigidly the cancellation of all leases that did not comply with statutory conditions. Two hundred and fifty leases have been cancelled, and thus much ground has been thrown open for re-staking.

EXCHANGES.

The Colliery Guardian, July 30, 1909.—A calamitous explosion occurred at the Maypole colliery, near Urgan, on August 18, 1908. The enquiry has just been concluded. The opinion that the explosion was caused by a blown-out shot seems to have most reason. The Colliery Guardian refers to the folly of treating the "permitted" explosive as a "safe" explosive. While admitting fully the need of more inspectors, our contemporary emphatically declares "that one of the lessons of this enquiry is to strengthen the belief that the 'practical' man is by no means fitted, simply as such, to fill responsible positions in which he is called upon to exert his critical faculties." . . . "As regards the suggestion that the offices of foreman and shot-lighter should be kept separate, we are somewhat at a loss to understand the line of reasoning that has prompted the jury to make this suggestion; the duties are very nearly akin in many respects, and the foreman is probably the official best acquainted with the conditions under which a shot has to be fired." If the fireman is to be relieved from an excessive burden of work, the Guardian intimates that this can best be done by reducing the size of his district.

The Iron and Coal Trades Review, August 6, 1909.—The averting of a general coal strike in Great Britain is dwelt upon editorially by the Review. A strike of this kind would have been "a national calamity of the worst kind." Moderate counsels prevailed during the