

September, bringing back a great quantity of specimens of gold and coal-bearing rocks. These specimens are now in the department of the geological survey. There is one large room which is filled with tables loaded with chunks of Alaskan gold quartz. There is a specialist who has for weeks been grinding chips from these rock specimens into leaves, each of which is thinner than a sheet of the finest writing paper, so thin, in fact, that it is entirely transparent. These leaves are put between plates of glass and subjected to a microscopic examination, by means of which their constituents and value can be known. Until the rocks are analyzed, the report of the expedition will not be ready for Congress. The work, however, is going on rapidly, and by the first of the year we will receive our first accurate knowledge of many of the Alaskan mines. The members of the expedition are scientific gold and coal experts. Dr. George F. Becker, the chief, is the man who investigated the gold fields of the south for Congress last year. Professor William H. Dall, another member has spent years in Alaska, as he is an expert as to coal mines, while C. W. Purington, Dr. Becker's assistant, is also a gold expert. During my talk with Dr. Becker he showed me a number of photographs of the different mining regions. He was very conservative as to the profits of Alaskan mining, but said that the output of Alaska will be at least \$1,200,000 this year.

Dr. Becker tells me that gold washing is going on along the shores of some of the islands of Alaska, and that there is gold in the sands along the shores of the Pacific running north along the coast. There is a great deal of gold washed up daily on the beaches of the Island of Kodiak. A large number of miners are engaged in the business, and they often make big profits. He tells me that mines have been recently opened on Admiralty Island which have good prospects, and that the Unga mines on a little island further westward are now turning out \$30,000 a month. These Unga mines are the property of the Alaskan Commercial company. They are quartz mines, having a rock much like that of the Bodie mine of California. The ledge is more than thirty feet wide, and the ore runs from \$8 to \$9 per ton.

The gold mines of the Yukon were not visited by Dr. Becker's expedition. It is a trip of more than 2,000 miles to them, going around by the Yukon river, and it takes more than a year to get there and back and make any kind of an investigation. There are little steam boats which go up the river carrying hundreds of tons of freight to the miners. They make their trips only twice a year and if one misses the boat he has to wait until the next year or come over the mountains to Sitka. Many of the miners go from Sitka in this way to the Yukon, carrying their supplies with them on the sledges, which they drag over the snow. The gold mines are placer mines found along the rivers and creeks which flow into the Yukon. These creeks are almost dry during the winter, but in the spring there are great freshets, which carry everything before them. The miners build fires on the gravel in the winter, and when the dirt is thawed they carry it up to the banks out of the way of the

freshets and wash it during the summer. The work is very laborious, but so far it has paid very well. Fifteen Yukon miners, who came back with the Geological Survey party in September last, had more than \$100,000 worth of gold with them, which they had taken out this year, and there are undoubtedly millions lying in the beds of the rivers. So far no quartz mining has been done.

Dr. Dall, who has visited the Yukon regions, tells me that the gold is largely found in streaks or what the miners call stringers, so that there may be a little string of gold without being a long vein. This by the action of the frost and the water is broken off, and nature grinds up, as it were, the gold from the placers. He does not say there are no large quartz leads in this part of Alaska, but states that the placers are not absolute evidence that there are such. These miners told Dr. Dall that they expected to go back next year. They have to undergo great privations, and Dr. Dall says that a man must have a capital of at least \$500 to start out from Sitka to mine gold on the Yukon. He ought to take a year's supplies with him, and he must be prepared for a climate of such a nature that in the winter the thermometer falls to sixty degrees below zero, while in the summer it rises as high as 100 degrees above that point. There are insects of all kinds during the summer, and the mosquitoes of Alaska are worse than those of New Jersey. The miners live in log cabins, and their accommodations are of the rudest possible nature.

A large number of coal mines were visited by this geological survey party, and Dr. Becker tells me that there are big veins of coal along Cook's inlet and along Katchenak bay. In the latter place the bluffs rise 800 feet straight up from the water, and the coal crops out of them, so that it could be easily transferred from the mines to the ships. It is a lignite coal, about five eighths as good as the Cardiff coal. It is believed that it could be taken to San Francisco and sold there for \$6 a ton at a profit. There is a possible market for this coal at a future half way station between Vancouver and Japan on the Aleutian Islands. At present each of the great trans Pacific steamers has to carry 2,000 tons of coal for each voyage. With such a station they could save 1,000 tons of freight each way in going to and from Asia.

During this expedition the geological survey party visited and took pictures of the new Bogoslov Island. This is the last possession that Uncle Sam has acquired. It rose out of the sea after we bought the territory from Russia, and as it was the direct gift of God, there is no possibility of the English laying claim to it. It is a volcanic island, some parts of which are still steaming, and which are so hot that they would roast any human being who touched them. Birds fall into the crevices of the rocks and are cooked, and Dr. Becker and his party ate eggs which they boiled over the steam coming out of the ground.

The loss of the gold territory will be by no means the only loss which Uncle Sam will sustain if the boundary line is changed as the Canadians desire it. It would cut us out of some of our best harbors and most valuable waterways. Few people realize the enormous amounts of money which we have gotten out of Alaska. When it was

purchased it was looked upon by many as a snow-clad desert, and Seward, who was then Secretary of State, had a hard fight with Congress to get it. There was a big lobby here at the time, and it was publicly charged that of the \$7,200,000 paid for it only \$5,000,000 reached the czar, the remainder being spent as a corruption fund. This was not true. Twenty-seven thousand dollars was all that went to the lobby, and this was paid to the attorneys who pushed the bill. In addition to this there was the sum of \$3,000 which went out of the whole amount to one of the Washington newspapers. \$2,170,000 was spent by the Russian minister in buying munitions of war and machinery, which were shipped to Russia. The cost of Alaska to us was, all told, not more than \$7,500,000. We paid just about two cents an acre for the property.

Now let us see what we have gotten out of it. The Seal Islands alone have paid between six and seven million dollars in rentals and royalties to Uncle Sam, and our people have sold tens of millions of dollars' worth of its products. The whaling industry has yielded more than \$11,000,000, and the fur, fish and mines up to 1890 had turned out products amounting to more than \$64,000,000, so that out of that which cost us less than seven million and a half, we had up to 1890 sold products to the amount of seventy-five millions, or to ten times the price originally paid.

The resources of Alaska are enormous. Senator Perkins of California, who is largely interested in whale fishing, could tell you just how many hundred thousand dollars are invested in that industry. He could show you how, during fifteen years, the whaling catch has amounted to millions, and how in 1891 there were more than a million and a half dollars' worth of whales caught in Alaskan waters. There are salmon canneries in different parts of Alaska which represent a capital of more than \$4,000,000. They employ thousands of laborers, and they export about \$3,000,000 worth of salmon every year. Cod fish is another industry, and Dr. Becker tells me that he believes that a large part of the Alaskan Islands would be available for stock raising. There is no doubt but that the territory has still great possibilities, and, in the opinion of those who know most about it here at Washington, Uncle Sam will be very foolish if he allows John Bull to take an inch more than that which is now so accurately set down in the treaties.

Frank G. Carpenter

CHRISTINE'S CRYSTALS

[Copyrighted 1893, and all rights reserved by Geoffrey Widdiston Christine.]

For our great American holiday of Thanksgiving we are indebted to the Puritan Pilgrims of New Eng and, though the idea of setting apart a day of general thanksgiving was far from being original with them.

Those families with the history of the long-suffering people are aware that the persecutions which they endured in England under Mary Elizabeth and James I, caused a number of them to emigrate in 1602 to Holland, where they established themselves in the city of