

claims can be occupied, the others remaining in the hands of the government to be sold for its benefit. An entry fee of \$15.00 is charged, and there is an annual fee besides of \$100. A royalty of ten per cent. is charged where the output amounts to \$500 a week, and twenty per cent. where it is over \$500.

There are various requirements necessary to follow in securing patent to a claim under the laws of both countries, and these are to be had in printed form in all the mining camps. It will pay every prospector to watch and carefully comply with all regulations and stipulations set forth by both governments. The Gold Commissioner of the Canadian Dominion is vested with extraordinary powers and the Klondike region is under his authority.

LAW AND ORDER.

Notwithstanding the absence of organized government in the new district, there is a surprising regard for life and property rights. Few cases of disorder or theft have been reported, and no dangerous or fatal assaults have occurred. The miner stands so much in need of protection for his life and property that he is deeply concerned in maintaining a strong government. He with his associates join together in preserving order, and willingly assist the few officials sent to represent the home authorities. The Dominion has mounted police at all principal points in its territory and the United States War Department intends to send in troops. There has also been established two United States courts. There is no more danger to person or property in the placer fields of Alaska and Northwest Territory than in any ordinary community, and not as much as in certain districts of the large cities. Alaska is in the revenue district of Oregon, and the laws of that state apply.

METHODS OF PLACER MINING.

There are three methods employed by miners in working placer ground:

1st. PANNING. This is by means of a broad shallow dish made of iron or copper. Into this the miner lifts a shovelful of gravel and sand. He then puts in water enough to fill the pan and gives a few whirls and shakes, which tends to settle the gold to the bottom on account of its greater weight. The dish is then shaken in such a way that the gravel and sand are washed out, leaving the yellow treasure at the bottom, mixed with black sand or pulverized iron ore. If the gold is fine it can be gathered with quicksilver, forming amalgam. So far the Yukon miner has not troubled himself to save the fine gold. Panning has been the most common method in Alaska.

2d. ROCKING. A rocker is simply a box about three feet long and two feet wide, made in two parts, the top part being shallow, with a heavy sheet iron bottom full of quarter-inch holes. The other part of the box is fitted with an inclined shelf about midway in its depth, which is six or eight inches lower at its lower end than at its upper. Over this is placed a piece of heavy woolen blanket. The whole is then mounted on two rockers, much resembling those of an ordinary cradle, and, when in use, they are placed on two blocks of wood, so that the whole may be easily rocked. After the miner has selected his claim, he looks for the most convenient place to set his "rocker," which must be near a good supply of water. Then he proceeds to clear away all the stones and coarse gravel, gathering the finer gravel and sand near the rocker. The shallow box on top is filled with this, and with one hand the miner rocks it, while with the other he ladles in water. The finer matter, with the gold, falls through the holes on the blanket, which checks its progress and holds the fine particles of gold, while the sand and other matter passes over it to the bottom of the box, which is sloped so that what comes through is washed downward and finally out of the box. Across the bottom of the box are fixed thin slats, behind which mercury is placed to catch any particles of gold which may escape the blanket. If the gold is nuggety the largest are found in the upper box, their weight detaining them until all the lighter stuff has passed through, and the smaller ones are held by a deeper slat at the outward end of the bottom of the box. The piece of blanket is at intervals taken out and rinsed into a barrel. If the gold is fine, mercury is placed at the bottom of the barrel and amalgam formed. The process is

continued until enough amalgam has been formed to pay for roasting or firing. It is then squeezed through a buckskin bag, all the mercury that comes through the bag being put back into the barrel to serve again, and what remains in the bag is placed in a retort, if the miner has one, or, if not, on a shovel, and heated until nearly all the mercury is vaporized; the gold then remains in a lump, with some mercury still held in combination with it.

3d. SLUICING. This method is employed when possible. It requires a good supply of water with sufficient head or fall. The process is as follows: Planks are procured and formed into a box of suitable width and depth. Slats are fixed across the bottom of the box at suitable intervals, or shallow holes bored in the bottom in such order that no particle could run along the bottom in a straight line and escape without running over a hole. Several of these boxes are then set up with a considerable slope and are fitted into one another at the ends like a stovepipe. A stream of water is now directed into the upper end of the highest box, and the gravel having been collected as in the case of the rocker, it is shoveled into the upper box and is washed downward by the strong current of water. The gold is detained by its weight and is held by the slats or the holes mentioned. If it is fine, mercury is placed behind the slats or in these holes to catch it. In this way about three times as much dirt can be washed as by the rocker, and consequently three times as much gold is secured, in a given time. After the boxes are done with, they are burned and the ashes washed for the gold held in the wood.

COOK INLET DISTRICT.

This body of water is about 600 miles west by north of Sitka and trails connect it with the Kuskokwim River, the second largest stream in Alaska, and with the Tanana and Yukon. A good deal of placer mining is being done along the shores of tributary streams, several hundred men finding employment in mining and fishing, there being three canneries. Large deposits of coal exist, which are described by Prof. Dall in his report to the government on the "Coals and Lignites of Alaska." The schooner Bertha arrived at Seattle in October from Cook Inlet with nearly one hundred miners having from \$500 to \$20,000 each, or a total of a quarter of a million between them, the result of a year's work. Among the party was A. P. Vinnedge, a well-known citizen of Seattle, who said:

"The Cook Inlet country is big with possibilities. Its resources have been but partially explored. For several weeks before I left several claims were paying \$150 to \$175 per day. Were it not for the Klondike records this would be considered big money. Our gold dust sells for \$16.50 at the mint. An ounce of gold dust per man per day diggings is about the average of the whole district, although on one claim on Mills Creek two men took out \$1,500 in ten hours. They used only a pan and rocker. Several hydraulic outfits will be sent up next spring and work will be done on a much larger scale. A California outfit of six men at the mouth of Six-Mile Creek has an immense bar of gravel. They will bring down about \$15,000 on a ship to leave later, the greater part of which will be put into a hydraulic outfit. They did a great deal of ditch work this year, or they would have more money to bring out. A large vein of free-milling gold quartz was discovered just before I left. It was located on the slope of Mt. Kenai, and a ledge 13 feet in width assayed nearly \$1,000 to the ton in gold. There are two mining districts—Resurrection and Sunrise. The Sunrise district consists of Six-Mile Creek and its various tributaries, and the Resurrection district of Resurrection Creek and its small branches. The ground on both of these creeks and their branches has been located in continuous claims. Sunrise City, at the mouth of Six-Mile Creek, is the Dawson of the district. The claims begin at the outskirts of the town and run up river. Both Resurrection and Sunrise creeks empty into the northern part of the inlet, within a short distance of each other. Sunrise City is a typical Alaskan mining camp town. It consists of about twenty-five log cabins and six frame store buildings. One of these is occupied by the Sunrise Hotel, two are used as saloons, and the others by the Alaska Commercial Company and the United States Mercantile Company. The town is on the top of a small building boom, and a great deal of lumber has been taken in this summer. The miners either live in cabins on their claims or in town. All are comfortable the whole year round."

The Russians established several colonies along the shores of the inlet, where they engaged in raising crops and cattle. The inlet has a good climate; the Russians called it "Summer Land." It is a veritable pleasure resort on account of its scenery, hunting and fishing. A chain of active volcanoes, snowy peaks and glaciers is in sight, and lofty waterfalls leap from rocky cliffs. Hot springs occur on the forested slopes. Old Fort Kenai stands on the eastern shore, and Mt. Iliamna, from whose double crater smoke is always rising, lies to the west, and near by is the largest lake in Alaska, Iliamna, 90 by 60 miles in size.