

## YUKON PLACER GROUND.

In the Engineering and Mining Journal is an interesting article by Henry Bratnober, an associate of the Rothschilds in mining matters, who recently returned from the Yukon. He writes: I have just returned from the Klondike gold fields, where I found a very good placer mining district. The formation of the country where the gold is deposited seems to be mica-schist that is streaked with quartz, which all carries a little gold, and it looks as though the gold was ground out of the formation by glacial action. The gold-bearing quartz seems to lie in this schist, and it is all of very low grade. This formation, as far as I was able to investigate, seems to be about 10 to 15 miles in width. On either side of this there seems to be a blocky diorite, which carries considerable quartz, and there are quartz veins running through it in every direction, but of no value. The country is covered with moss, and frozen to bedrock, and no one knows how far beyond. There is very little wash, and especially on El Dorado creek, where the glacier mud seems to have been frozen, and is found almost to bedrock. In sinking to bedrock the shafts pass through this frozen dirt, and

## IN MANY INSTANCES

blue ice is found two and three feet thick in strata immediately above the bedrock. In some places it is found near the surface. It is difficult and almost impossible to drift this ground in the summer season, as even by close timbering the thawing of the ice will cause the shaft to cave in. The method of working in the winter is the same as that used in Siberia, where the ground is frozen at a great depth. Fires are built underground, where they carry abreast of 30 to 40 feet wide, and one burning along this length will thaw in about six or eight inches. The thawed dirt is then taken out and another fire is built. By this method they seem to get along very well. It is the usual custom to have two shafts, unconnected, so that while they are working in one shaft the fire will be burning in another, so that the work of extracting the earth may be continuously prosecuted. There will be a great deal of activity and a large amount of work done on the Bonanza and El Dorado creek this winter. Most of the ground is worked on what they call a "lay"—that is, the owner or owners of a claim 500 feet long give a party of two or three a lease of a piece of ground to drift out, the persons who work the ground to receive one-half of the gold taken out. On the richer claims it is often drifted out for 40 per cent. of the yield. Nearly all the claims are worked under this method of leasing. Some of them are leased in sections to different parties, and the owner sits around watching the different sets of men working out the ground. By this system a great deal of Bonanza and El Dorado creeks will be

drifted out this winter. As some of these claims will have four or five sets of men working upon them, their output will be large next year. The dirt taken out will be washed in May, June and July. There are very few summer diggings where they can shovel into sluices; therefore, there will be but little gold taken out aside from the drifting process.

## SOME OF THE CLAIMS

are very rich, and will average \$1 to \$1.50 to the pan; that is to say where the bedrock is shaley. They take this up for nearly three feet in depth. Where there are no quartz stringers in the schist the bedrock seems to be decomposed and is quite soft, such claims are not of much value, except that they about pay wages. The ground is very spotted. In some instances there are rich spots where \$40 or \$50 to a pan have been obtained, but these are only phenomenal instances. We hear a great deal about them, but we never hear anything about the poor claims. But on the whole consider the placers as very good diggings, and a good many fortunes will be made. I estimate the output for 1898 will be in the neighborhood of \$5,000,000. Of course this will depend somewhat on the success of the prospectors this winter. The country will be well prospected between now and next January, which is the best time for that kind of work. It is almost impossible to get around in the hills in the summer on account of moss and swamp and the difficulty of taking along supplies. Horses cannot be used and the prospector can only go so far as he is able personally to carry his provisions. There is very little feed or grass to be had for animals of any kind. There was more feed on the Dalton trail than in any other part of the country that I travelled through. The farther north one goes the less grass is found. There is an ample supply of men there to do all the work that can be furnished this winter, indeed there will probably be some who will find it difficult to get work. Provisions will be scarce, but I do not think there will be any starvation. It will always be a difficult matter to supply that country with provisions by river transportation, as the seasons are so very short and the river in many places very shallow. It is only light draft steamers that can get to Dawson, and, on account of the passes, there is difficulty in bring supplies down the river.

## HYDRAULIC MINING

on the Klondike is impossible on account of the frozen nature of the country. Quartz mining will also be impossible, unless the veins are very rich. Labor will also be very high, and another great drawback is the fact that all the creeks freeze up solid in the winter, and there is no running water to be found anywhere. Fuel costs \$19 a cord, and labor is \$15 a day, and not very good labor at that.