

## CHARACTER OF VEIN.

I have examined this lode at various places for a distance of about 2,000 feet on this location. It is subject to expansions and contractions like other veins, but on the whole it appears to be 6 to 8 feet wide within the walls consisting of quartz with a central belt of soft talcose slate, two to four feet wide charged with iron pyrites and some gold, which may pay to work in places. The vein dips N. W. at an angle of about  $75^{\circ}$  to the horizon and bears north eastward, cutting the strike of the slates at a small angle. On either side it is bounded by greenish slates that are more or less talcose in character. It is an undoubted true fissure vein, and gold veins that carry much of the sulphurets like this one are considered as reliable for carrying in depth as fissure veins of other metals.

The quartz are 2 to 5 feet wide, charged with galena, iron and copper pyrites, zinc blende and the sulphurets of silver and tellurium with spangles and grains of gold large and small disseminated through the whole in more or less quantities, but more plentiful along with, and in the vicinity of the ores of silver and tellurium, which make in bunches here and there through the vein. These bunches yield several thousand dollars to the ton and are likely to be found in places large enough to be worthy of being called "bonanzas." For result of an assay of the high grade ore see certificate of assay of Ledoux & Ricketts (No. 1). Independent of this rich ore, the balance of the quartz shows an average yield of \$45 to \$50 to the ton, and by the thorough tests lately made of the ore in a large way \$26 of gold to the ton can be taken out by the free milling process or copper plates, which can be cheaply worked. Ten dollar a ton ore, free milling would pay well at this mine. In Australia, mines are worked at as low as \$3.00 a ton and pay 10 per cent. on the capital invested; but of course this is under very favorable circumstances. In the Black Hills of Dakota, ore yielding 6 to 8 dollars when free milling is worked very profitably.

## THE TESTS.

This summer I was engaged to have a fair average test of the ore of this lode made. I took a gang of men and proceeded to the mine. All the exposures of the vein were examined and I found the