

The contents of the lode are somewhat miscellaneously disposed. Besides the great prismatic horse just mentioned, are many smaller fragments of country rock, together with clay, quartz and silver-bearing minerals. Most of the ore contains both silver and gold, but the proportions of the two metals vary in different parts of the lode. From the whole lode the yield of gold has been 43 per cent and of silver 57 per cent. The richest quartz lies nearest the hanging wall. A mass of ore rich enough to pay for working is styled a "bonanza." An ore must afford fifteen or twenty dollars a ton to pay. The celebrated "great bonanza" averaged \$80 to the ton. It was composed of crushed quartz, including fragments of country rock, and carried a few hard, narrow, vein-like seams of very rich black ores; while nearly the whole mass of the crushed or "sugar quartz" was impregnated, to a moderate extent, with native gold and stephanite, which is an arsenical sulphide of silver known sometimes as *brittle* silver glance. Even the country rock was also charged with these ores.

It would not be proper to enter further into particulars of this kind. But glance a moment at the mechanical operations. Perhaps you think the miners attacked the wonderful Lode at its outcrops, and followed it down on a slope into the earth. Not at all. As soon as this method of exploration had revealed the position and promise of the lode, great capitalists laid out the work according to methods sanctioned by centuries of experience in other countries. Going some hundreds of feet to the east of the lode, a vertical shaft would be sunk until the lode was struck. At frequent intervals, horizontal passages were excavated westward to the lode, and through the lode to the foot wall. From these, other passages or galleries were excavated along the lode. From these numerous galleries, the various ore-bodies were discovered and worked out, within the limits of the claim. There is a large number of claims or properties along the lode, and there are twenty-four shafts sunken on the east. In course of time, the various mining operations have been brought into some degree of concert and system. Without this, the difficulties of the