

managers can make slices of the country rocks and classify them from a microscopic examination. The granite surrounds patches of slate as exhibited from Silverton to Whitewater, and south from Carpenter Creek to the village of Cody. There is a strip of other varieties of igneous rocks carrying copper, gold and silver along the north bank of the Kootenay River; and a strip of metamorphic rocks at Ainsworth. Outside of these isolated exceptions we may say broadly the country rock is granite. In the slate, as typified by the Rambler-Cariboo mine, they have followed their vein through the slate into the granite with even enhanced values occurring. The author would especially draw the members' attention to the veins on Springer, Lemon, Ten Mile, the head of Four Mile including Rennell, Cody, Kokanee and other Creeks. Among the many mines containing these ores are the Arlington, Hewett, Enterprise, Bondholder, Fisher Maiden, Republic, V. & M., Erin, Evening Star No. 8, Exchange and others.

Let us first look at the characteristics of the veins carrying these ores. So far as known there are at least four series of veins. First from Twelve Mile Creek going south across Springer to Lemon Creek are six (6) parallel veins within a zone three thousand (3,000) feet wide, known by development to traverse the country for five miles. Their strike is N 20° W, S 20° E, with an easterly dip of steep pitch, and they are strong veins varying from six to thirty (6 to 30) feet wide of vein matter between walls. They generally have a pay streak of extra rich ore on both hanging and foot wall, from a few inches to two feet wide each one; then often one or more pay streaks lie in the vein matter between the outer streaks with some values distributed throughout, so that by stoping out the whole vein from wall to wall, twelve dollars (\$12.00) and more per ton in gold and silver alone can be averaged from the mass. These mines of this series have a future of large tonnage, and that must be treated economically to pay dividends. Typical mines of this class are the Republic, Erin, Peerless, Combination and other groups.

Then intersecting these first veins are others with strike E 5° N and W 5° S (all points of the compass are described magnetically), dipping south with wide vein-matter carrying mostly silver values, most