

A number of other strikes and dips were taken which have no particular significance. Through the anticlinal, nearly parallel with the strike and its axis, runs a great vein or a series of veins, on which many locations have been made. It cuts the summit of the mountains at the central portion of the anticlinal, and has been traced for ten or twelve miles. This crack, contrary to what might be expected, widens at the base of the mountains and narrows at the summit, and seems to have been produced not so much by the force of upheaval and lateral pressure as by the later subsidence of the fold, due to the instability of the crust. Had it been an anticlinal crack it would have been wide at the summit and narrowed with depth, but it is the reverse, and probably has been produced as above stated by a pulling apart, produced by subsidence.

The smaller anticlinals and the vertical dip occur about 6,000 feet below the original summit of the anticlinal, the greatest pressure having been exerted here. The veins widen at the base, their width as taken in Snow Shoe Gulch at the summit about 7,000 feet being  $2\frac{1}{2}$  to 4 feet, while 1,500 feet below this they measure eight or nine feet in width. The strike of the vein is about  $25^{\circ}$  east of south, slightly to the east of the centre of the anticlinal. It is filled with quartz, some carbonate of iron with alternating bands of galena, zinc blende and iron pyrites, and may be called a rib banded vein. There are many stringers frequently mineralized, extending out on both sides of the vein in the joint cracks which run nearly at right angles to the bedding planes of the formation, eight miles north of the Snow Shoe Gulch. I examined the vein 3,700 feet above the sea and it exhibited a width of a foot or more. The stringers in the joint cracks on both sides were highly mineralized and in one instance a foot or more in width. This crack or fissure does not extend to as great a height in some portions of the anticlinal as in others. There are other large veins parallel with this both east and west of it but differently mineralized. All the veins carry a small percentage of gold, which accounts for the placer beds formed