

the south of us, and in Alaska to the north, the rocks, obedient to the demands of enterprise and capital, are yielding up their treasures with a profusion almost incredible. Nature drew no line of demarcation at the boundary. The rocks of our three hundred thousand square miles of mountain and valley are of a similar formation to those of the gold and silver producing districts of the United States, and the day must come, and that too before long, when capital and experience combined will utilize the wealth which has been so lavishly bestowed upon us.

FORMATION OF VEINS.

Gold veins are the result of emanations from great depths below, which, ascending through rifts and fissures of the rocks, were condensed or deposited upon the walls. The great argentiferous lodes of Mexico and South America, the most productive of all known in history, can be followed not more than *six or eight* miles; while in California a vein or mother lode is distinctly traceable on the surface a distance of more than sixty miles. The general course is nearly northwest and southeast, or 40 degrees west. The dip is usually eastward and at an angle of 45 or 50 degrees to the horizon. The quartz of the mother lode (west of the Rocky mountains, of which we are now writing) is usually hard and white, and in most of the pay chutes near one wall or the other ribbon rock, or rock with numerous black seams lying parallel with the wall is found. Streams seem to have made their beds in places where the mother lode is split up into a number of branches. True fissure veins are continuous in depth, and their metalliferous contents have not decreased at any depth which has yet been obtained by mining. The great majority of the auriferous quartz lodes of California are gash veins. Segregated and