ECONOMIC GEOLOGY

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course. Any colors of gold would be recorded on a sketch map, and they would increase in size and number toward the source of the gold. Where the colors are abundant some grains of gold would probably be found, and perhaps ovoid particles with a spiral mark ; they, from their resemblance to the dung of mice, are known as mouse-droppings. They are due to a grain of gold having been hammered by pebbles into a thin disc, which has been coiled up as it rolled down stream; the outer edge of the disc forms the spiral mark. Coarse angular grains are called shed gold because it is thus shed from the parent rock. Owing to the softness of gold the grains are soon worn smooth, so that shed gold has not travelled far. If no gold or only a few colors are found beyond a place with shed gold, the prospector infers that he has passed its source, and would search for a "lode" from which the gold may have come. The most likely lode would be a vein of quartz; and any quartz-veins would be examined. especially if the quartz contained cavities and were stained brown by oxide of iron.

If no rock is exposed the search is continued by loaming. The prospector has a long cotton bag, perhaps 6 feet long and 6 inches in diameter. He digs a regular series of holes and places a sample of earth from the bottom of each in the loam-bag and ties a string just above each sample; the process is repeated until the bag is full, when it resembles a string of sausages. The loam-bag prevents any mistake in the order of the samples, which are washed one by one in the tin dish at the river side. The results are marked on a plan which shows the distribution of the gold. A line could probably be drawn on the plan separating the goldbearing from the barren samples. The source of the gold should lie near that line. The prospector would next search for the lode by costeaning, a Cornish term for open trenches, or, if the material be too deep, by a line of pits. The "costeans" would be dug to the bedrock, and should expose the lode from which the gold has come. The lode would be sampled to determine whether it is rich enough to repay working, or whether, until the country has been settled, it would be more profitable to work only the alluvial material.

During this prospecting if other valuable metals are