

upon the possible existence of "placer" deposits or alluvial diggings along the course of old channels of drainage. A few words may be added upon each of these points.

(1). Over very considerable areas the covering of drift is such as to completely conceal from view the underlying strata. As already remarked, this is particularly true of the whin belts along or in the vicinity of which the principal auriferous lodes occur. This covering is often composed largely of boulders which may be piled up in great heaps and often attain immense proportions, but when these are less frequent, (for they are seldom wholly absent), there are commonly thick beds of coarse gravel or, in the numerous depressions, extensive peat bogs and barrens. The thickness of the superficial deposits is, in the absence of kames, ordinarily about seven or eight feet, but may be twenty feet or more, while the height of local drift ridges or kames may be as much as one hundred feet.

(2). While these superficial deposits thus hide from view the underlying rocks, and thus greatly enhance the difficulties of the explorer and prospector, they may, nevertheless, be so employed by him as to lead the way to the discovery of lodes of which otherwise he might never suspect the existence. I have been informed that in the case of several of the most important mines at Molega and Whiteburne, the first discoveries of gold were made in quartz-bearing boulders, which were then carefully traced back to their parent source. From the nature and origin of the drift these are naturally sought to the north of the localities in which the boulders occur, and the distance travelled has apparently usually been but slight, commonly not over half a mile. In trenching or costeneing the surface, the quartz boulders are found to increase in number as well as in size as the lode is approached, and when this is passed, to suddenly cease. They are also said to be invariably sharp and angular, not rounded, and to be more deeply buried near the lode than at points more remote from the latter. Intelligent and practical prospectors even maintain that they can recognize from hand specimens of gold quartz the lead from which they were derived.

(3.) The larger parts of the superficial deposits of South-