

fissure-kind here, I think the majority are of the other variety, in which the space for the reception of the vein-matrix was created by solvents in the water circulating through the crushed material along the fractures. In the latter case, the size of the quartz-vein is not a fair standard of the strength, value or continuity of the lode, when judged by the principles of formation and filling of fissure-veins of later formation. The lamination of the walls is, I think, a guide by which to distinguish the two kinds of veins. I am strongly of the opinion that mining men and experts in general will be mistaken if they look for the general characteristics of the open fissure-vein among the Archæan rocks of the western gold fields of Ontario.

In conclusion, I may say that the doubts which existed about the continuance downwards of the gold-deposits in these Archæan rocks have about vanished within the last two years. I think that, upon consideration of the showing made here, it will be conceded that the auriferous deposits of the western Ontario gold-fields promise to improve in depth—more, probably, than those of any other gold-mining country in the world. The deeper into the veins, the more effective should have been the crushing and granulating process; and, proportionally, the quantity of both quartz and mikadoite ore should be greater also.