

REVIEWS.

THE GOLD MEASURES OF NOVA SCOTIA AND DEEP MINING, by E. R. Faribault, B. A. Sc., Geol. Survey of Canada.—11 pp. with two maps and a number of illustrative sections. Paper read before the Canadian Mining Institute, March, 1899. In this very valuable addition to the literature of Economic Geology Mr. Faribault presents in a most concise and readable form his conclusions as to the mode of occurrence of gold in Nova Scotia. Dealing first with the extent of the gold measures, Mr. Faribault estimates that they cover 5,000 square miles. They consist of an upper or state group, two miles in thickness and a lower or quartzite group, 3 miles in thickness and are probably of lower cambrian age. Since their deposition on a sea floor they have been very uniformly folded into a series of anticlines and synclines roughly parallel with the coast line. The auriferous quartz veins have been deposited at the summit of these anticlines and along certain lines on either side of and parallel to the axes and their deposition has been due to the loosening and opening up of the strata along the planes of sedimentation. Though the original bedding in these rocks is masked by a uniform cleavage subsequently developed, Mr. Faribault has been able, by close structural work in the field, to fix accurately the anticlines and twenty-one domes or cross undulations affecting the anticlines and defining the occurrence of payable reefs. Although granitic intrusions are common they have occurred subsequent to the filling of the gold veins and in no way affect their richness. Mr. Faribault's theories as to the position and extent of the pay steaks and his advice as to the lines along which deep mining should be prosecuted must be of the greatest value to the practical miner, and his comparison of the Nova Scotia district with that of Bendigo, Australia in the matter of deep mining is most instructive and encouraging. The paper altogether is most valuable and exemplifies in the clearest manner the necessity of good structural work, carried out in a scientific way, in the development of a mining district.